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THE *59.02.06 (4-2)*
Avicultural Magazine,

BEING THE JOURNAL OF
THE AVICULTURAL SOCIETY
FOR THE STUDY OF
FOREIGN AND BRITISH BIRDS
IN FREEDOM AND CAPTIVITY.

EDITED BY
D. SETH-SMITH, F.Z.S., M.B.O.U.

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REPORT OF THE COUNCIL FOR THE YEAR

1901-1902.

It is with much pleasure that we complete our eighth Annual Volume of the *Avicultural Magazine*, and present our Report to the Members of the Society.

The year bore a gloomy outlook at its commencement, owing to the number of Members who sent in their resignations—for whom we have every respect—and to a not inconsiderable number who “overlooked” to send in theirs and allowed their names to remain on the Books of the Society, to whom reference was made at page 240. But the cloud has passed away, the outlook has brightened and continues to grow brighter, and we are able to present to our Members a Volume which we think beats all its predecessors both in quality and quantity. And the List of *bonâ fide* Members which will appear in our next issue, and which will be corrected up to the time of going to press, will speak for itself.

Thanks to the energy and enterprise of Mr. SETH-SMITH, our Honorary Editor, not less than one illustration has been published in our Magazine every month; and we have not stopped short by confining our energies to the present, but have already several coloured illustrations in hand for Vol. IX.; and it will be our endeavour with Vol. IX. to make a steady improvement on Vol. VIII.

Next to the illustrations and the increase of the letterpress, an important feature in our issues commencing with December has been Mr. GILL'S monthly *Post Mortem* Report. His kind assistance has rendered valuable aid to our Members, and is much appreciated.

Another very noticeable feature of the year has been the largely increased sale of the Society's Magazine to the general public. To this we are greatly indebted to the energy of our publisher, Mr. PORTER. On the other hand, we feel that if the Magazine were not of value it would not be purchased,—and therefore that our aim should be to maintain the Magazine at its present high standard, and, as far as practicable, to improve upon it.

The finances of the Society are in a sound state. Notwithstanding the heavy outlays on the Coloured Plates, we have no reason for supposing that there will be a deficit when the accounts are closed for the year. In any event, we cannot too strongly urge upon our Members the importance of increasing our Membership, so that, with an increased income, we may be enabled to still further improve our Magazine.

We most cordially thank the large body of our Members who have so faithfully supported us through all our difficulties, and the growing number who have contributed to our pages. Highly satisfactory, however, as that number has been, there are many members who could contribute most valuable articles, but whose pens unhappily have been at rest so far as our Magazine is concerned.

We earnestly invite all our Members to assist us by sending in their subscriptions before Christmas. By so doing, they will be rendering material help, for they will greatly lighten the never-ceasing burden that hampers our Hon. Secretary, and set him free for more important work. During the past year, quite a substantial number of valuable letters never reached the hands of our Hon. Editor owing to sheer inability on the part of the Hon. Secretary to find time to put them in order for publication.

We gratefully thank those who have helped us with illustrations. We ask specially for assistance with suitable bird-subjects. In this connection, we are particularly indebted to the Rev. HUBERT D. ASTLEY, who, notwithstanding serious indisposition, has painted two illustrations for us, one of which has already appeared, the second being in hand.

The help rendered by the Officers of the Society and Members of the Executive we most gratefully acknowledge.

(Signed),

A. G. BUTLER,	ARTHUR GILL,
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C. D. FARRAR,	R. PHILLIPPS.

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AUSTRALIAN CRANE AND NEST.

Drawn from Photo by Rev. H. D. Astley.

The Council are indebted to the Editor of the "Field" for the loan of the block from which the above was printed.

THE

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FOR THE STUDY OF
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- BUTLER, Dr. A. G., F.L.S., F.Z.S., 124, Beckenham Road, Beckenham, Kent. (Orig. Mem.) •
- CAMPS, Mr. H. H. T., F.Z.S., Linden House, Haddenham, Isle of Ely. (Orig. Mem.) •
- CARLYON, Mrs., Melrose, Lyndhurst. (Dec., 1900).
- CARNEGIE, The Lady, Crimonmogate, Lonway, Aberdeenshire. (Feb. 1901).
- CARPENTER, The Hon. Mrs., Kiplin, Northallerton. (Feb., 1898).
- CARPMAEL, Miss, The Ives, St. Julian's Farm Road, West Norwood. (April, 1896).
- CARRICK, Mr. GEORGE, Strathearn Cottage, Saltcoats, Ayrshire, N.B. (March, 1898).
- CARTER, Mr. WALTER L., Summergate Villa, Parkinson Lane, Halifax. (June, 1895). *
- CASTELLAN, Mr. VICTOR, Hare Hall, Romford, Essex. (Orig. Mem.)
- CASTLE-SLOANE, Mr. C. Oat Hall, Staplefield, Crawley, Sussex. (March, 1900).
- CATLEUGH, Mr. W. T., Clyffe, Richmond Wood Road, Bournemouth. (Dec., 1894).
- CECIL, Lady WILLIAM, Hummauby Hall, Filey, Yorkshire. (Feb., 1901).
- CHAPMAN, Mr. P. GODFREY, 21, Lennox Gardens, S.W. (Oct. 1898).
- CHARRINGTON, Mrs. MOWBRAY, The Warren, Hever, Edenbridge, Kent. (May, 1896).
- CHAWNER, Miss, Forest Bank, Lyndhurst, Hants. (July, 1899).
- CLAYTON, Mr. H. C., 3, East View, Pinderfield, Wakefield. (Aug., 1901).
- COCKSEGE, Mr. E. LE HEUP, Beyton Grange, Suffolk. (March, 1898).
- CONNELL, Mrs. A. KNATCHBULL, The Orchard, Brockenhurst, Hants. (Nov. 1897).
- CONSTABLE, The Rev. W. J., Uppingham School, Uppingham. (Sept. 1901).
- CONYNGHAM, The Dowager Marchioness, 36, Belgrave Square, London, S.W. (Jan., 1900).
- COOPER, Mr. JAMES, Killerby Hall, Scarborough. (Orig. Mem.)
- COTTON, Mr. R., 244, Bramall Lane, Sheffield. (July, 1901).
- CRAFER, Mr. A., 61, Ship Street, Brighton. (Dec., 1894).
- CREIGHTON, Mr. R., Likoma House, Belle Vue Street, Filey. (Sept. 1897).
- CRESSWELL, Mr. O. E., M.A., J.P., Morney Cross, near Hereford. (Orig. Mem.)
- CRESWELL, Mr. WM. GEORGE, M.D., Eden Lodge, Kingston-on-Thames. (June, 1900).
- CRONKSHAW, Mr. J., 85, Plantation Street, Accrington. (Dec., 1894).
- CUMMINGS, Mr. ALEXANDER, 16, Promenade Villas, Cheltenham. (Dec., 1896).
- CUNLIFFE, Mr. H. J., 20, Eaton Gardens, Hove. (May, 1899).

CUSHNY, Mr. CHARLES, Pain's Hill, Cobham, Surrey. (June, 1896).

DALY, Mr. EDWARD D. H., (late Lieut. Bengal Staff Corps), Cavello Cottage, The Purlieu, Hythe, Southampton. (Dec., 1895).

DELL, Mr. CHARLES, 9, High Street, Harlesden, Middlesex. (July, 1900).

DENT, Mr. C., Old Bank, Scarborough. (Feb., 1899).

DEVAS, Mr. GEORGE, Hartfield, Hayes, Kent. (Oct., 1898).

DEWAR, Mr. J. F., 2, St. Patrick's Square, Edinburgh. (Orig. Mem.)

DOUGLAS, Mr. W. C., F.Z.S., 9, Trebovir Road, Earl's Court, S. W. (Nov., 1900).

DREWEATT, Mr. THOS., Norfolk Lodge, Speen, Newbury. (July, 1901).

DRUITT, Mr. C. F., Brightlands, Sherburn Road, Torquay. (Jan., 1899).

DUNCOMBE, The Hon. Mrs., The Grange, Nawton, R.S.O., Yorks. (April, 1897).

DUNLEATH, The Lady, Ballywalter Park, Ballywalter, co. Down, (Aug. 1897).

DUTTON, The Hon. & Rev. Canon, Bibury, Fairford. (Orig. Mem.)

EALAND, Mr. C. A., The Cedars, Langley, Bucks. (Sept., 1901).

ELWELL, Mr. JAMES E., Bar Cottage, Beverley. (May, 1901).

FARMBOROUGH, Mr. PERCY W., F.Z.S., The Public Library, Edmonton. (June, 1896).*

FARRAR, The Rev. C. D., Micklefield Vicarage, Leeds. (Jan., 1895).

FIELD, Mr. GEORGE, Sorrento, Staplehurst, Kent. (March, 1900).

FIFE, Mrs., Langton Hall, Northallerton. (Oct., 1898).

FINN, Mr. F., B.A., F.Z.S., Indian Museum, Calcutta. (March, 1895).

FOTHERGILL, Major, Copt Hall, Hawkhurst, Kent. (April, 1900).

FOULIS, Mr. JOHN F., Penicuik, N.B. (Dec., 1900).

FOWLER, Mr. CHARLES, 26, Broad Street, Blaenavon. (Dec., 1894).

FOX, Mr. C. J., 35, Addington Street, Ramsgate, Kent. (May, 1897).

FRANKLIN-HINDLE, Mr. R., 44, Grosvenor Road, Birkdale, Southport. (Sept., 1898).

FROSTICK, Mr. JOHN, 18, Temperley Road, Balham, S.W. (Orig. Mem.). *

GARROW, Mr. JAMES, 49, East London Street, Edinburgh. (June, 1900).

GIBBINS, Mr. WILLIAM B., Ettington, Stratford-on-Avon. (June, 1895). *

GILL, Mr. ARTHUR, Veterinary Establishment, Bexley Heath, Kent. (Dec., 1899).

GLASSCOE, Mr. GEORGE D., 24, Carlton Road, Clapton, N.E. (Dec., 1898).

GODDARD, Mr. H. E., 5, Lachett Road, South Woodford, Essex. (Feb., 1899).

GOODFELLOW, Mr. W., c/o J. J. Mumford, Esq., The Poplars, Kettering. (June, 1897).

GORTER, Mrs., The Delta, Walmer, Kent. (Nov., 1901).

GOSLING, Mrs. R. H., Manor House, Waltham St. Lawrence, Twyford. (March, 1900).

GRACE, Mr. GUSTAVE LE CARPENTIER, 24, Wood Street, Wakefield. (March, 1896).

GREEN, Mr. ALBERT, 4, Cannon Terrace, Bournemouth. (Feb., 1898).

GRIGGS, Dr. W. A., 102, London Road, Leicester. (Oct., 1898).

HAMILTON, Mrs., Bannerdown House, Bathaston, Bath. (Feb., 1895).

HAMMOND, The Honble. K., 26, Eaton Place, S.W. (Aug., 1901).

- HARBOTTLE, Miss, Meadowside, 12, Victoria Place, Budleigh Salterton, Devon. (Dec., 1895).
- HARDINGE, The Hon. Lady, Petite Luquette, Hyères, Var, France. (Nov., 1896).
- HARPER, Mr. E. W., F.Z.S., M.B.O.U., 1a, Carnac Street, Calcutta. (Feb., 1901).
- HARRISON, Miss EDITH, Waterhouse, Bath. (Sept., 1895).
- HARTLEY, Mrs., St. Helen's Lodge, Hastings. (April, 1897).
- HAWKE, The Hon. MARY, Wighill Park, Tadcaster. (Nov., 1900).
- HAWKINS, Mr. L. W., Estrilda, New Clive Road, West Dulwich, S.E. (Jan., 1899).
- HEMSWORTH, The Rev. B., Monk Fryston Hall, South Milford, York. (June, 1901).
- HENWOOD, Mr. T. E., Anricula Villa, Hamilton Road, Reading. (Dec., 1894).
- HESELTON, Mr. H. C., 299, Westminster Road, Liverpool. (Dec., 1899).
- HETT, Mr. CHARLES LOUIS, Springfield, Brigg. (Jan., 1896).
- HILL, Mr. W. S., 14, Thirhnere Street, Hightown, Manchester. (Dec., 1900).
- HINCKES, Mr. R. J., Foxley, Hereford. (Feb., 1899).
- HINCKS, Mr. J. W. R., Leicester. (Oct., 1899).
- HODGSON, Miss, Hernewood, Sevenoaks. (Dec., 1894). *
- HOPSON, Mr. F. C., Northbrook Street, Newbury. (March, 1897).
- HORSEBURGH, Lieutenant B., 4, Richmond Hill, Bath. (Jan., 1898).
- HOULTON, Mr. CHARLES, Denton's Green Lane, St. Helens. (Feb., 1897).
- HOUSDEN, Mr. J. B., Brooklyn, Cator Road, Sydenham. (Orig. Mem.)
- HOWARD, The Lady VICTORIA, Charlton Cottage, Malmesbury. (Oct., 1899).
- HOWMAN, Miss, Sherwood, Essex Grove, Upper Norwood. (March, 1897).
- HUGHES, Mrs., 109, Freshfield Road, Kemp Town, Brighton. (April, 1895).
- HUMPHRYS, Mr. RUSSELL, Lingdale, Bickley, Kent. (April, 1896).
- HUSBAND, Miss, Clifton View, York. (Feb., 1896).
- HUTT, Mr. HENRY T., 24, Cockspur Street, London, S.W. (Nov., 1896).
- ICHIGUIN, The Lady, Moor Park, Ludlow. (Nov., 1897).
- JENNISON, Mr. GEORGE, Devonport Park, Stockport. (Sept., 1897).
- JOHNSTONE, Mrs. M.A., Rougham Hall, Bury St. Edmunds, Suffolk. (May, 1900).
- KILLMISTER, Mr. GEO., Macclesfield, Cheshire. (Aug., 1901).
- KING, Mr. J. B., Annandale House, Glebe, Kilmarnoch. (Oct., 1896).
- KIRKE, Mrs., Sandlea, Abbotsham Road, Bideford, N. Devon. (Feb., 1897).
- KENYON, Lord, Gredington, Whitechurch, Shropshire. (Feb., 1899).
- KNEEN, Mr. T. E., 110, Harrington Road, Workington. (June, 1895). *
- LAMBERT, Mr. FRANK, Langholm, Beverley. (June, 1900).
- LANCASTER, Mrs., 1, Victoria Terrace, Walsall. (Aug., 1897).
- LANDLESS, Mr. W., Portland Villa, Waterloo Road, Ashton-on-Ribble, Preston. (Dec., 1896).
- LASCELLES, The Hon. GERALD, King's House, Lyndhurst. (Oct., 1896).
- LAW, Mr. E. C., 2, Cromwell Road, Teddington. (Dec., 1897).
- LEEDER, Mr. J. VINER, Dorset House, Bryn Road, Swansea. (Nov., 1899).
- LEIGH, Mr. H. BOUGHTON, Brownover Hall, Rugby. (May, 1900).
- LENNIE, Mr. J. C., Rose Park, Trinity Road, Edinburgh. (Orig. Mem.) *

- LILFORD, The Lady, Lilford Hall, Oundle, Northamptonshire. (Jan., 1898).
 LYNCH, Mr. CYRIL, 45, Rua Dr. Corrêa, Cattete, Rio de Janeiro, Brazil.
 (April, 1897).
 LYON, Miss G., Harwood, Horsham. (Nov., 1894).
 MAITLAND, Mrs. KEITH, 2, Douglas Gardens, Edinburgh. (July, 1900).
 MARTIN, Mr. H. C., 141, Victoria Road, Old Charlton, Kent. (Jan., 1897).
 MATHIAS, Mr. H. W., Doone Cottage, Thames Ditton, Surrey.
 (March, 1900).
 MAXWELL, Mr. C. T., South Lawn, 24, Acre Lane, Brixton, S.W.
 (March, 1896).
 MCCORQUODALE, Mrs., Gadlys, Llanbadarn, Isle of Anglesey. (May, 1898).
 MEADE-WALDO, Mr. E. G. B., Stonewall Park, Edenbridge, Kent.
 (Jan., 1865).
 METCALFE, Mrs., Gloucester House, Stonebridge Park, Willesden, N.W.
 (April, 1901).
 MITCHELL, Mrs., Crakehall, Bedale, Yorkshire. (Sept., 1898).
 MILLER, Lady, The Knowle, Bournemouth. (July, 1899).
 MOERSCHILL, Mr. F., Imperial Hotel, Malvern. (June, 1895).
 MORSHEAD, Lady, Forest Lodge, Binfield, Bracknell, Berks. (Dec., 1894).*
 MORTIMER, Mrs., Wigmore, Holmwood, Surrey. (Orig. Mem.)*
 MUMFORD, Mr. J. J., The Poplars, Kettering. (Dec., 1900).
 NEWMAN, Mr. T. H., 20, Montpelier Square, South Kensington, London.
 (May, 1900).
 NICHOLSON, Mr. ALFRED E., Emlinville, Coltbridge Gardens, Edinburgh.
 (Oct., 1896).*
 NICHOLSON, Mr. W., 1, Ord Place, Gateshead. (Feb., 1898).
 NOBLE, Mrs., Park Place, Henley-on-Thames. (Oct., 1900).
 NORWOOD, Mr. EILE, York. (Aug., 1901).
 OAKEY, Mr. W., 46, High Street Leicester. (March, 1896).*
 OATES, Mr. F. W., White House Farm, New Leeds, Leeds. (Oct., 1897).
 OGILVY, Mr. HENRY S. T. HAMILTON, Biel, Prestonkirk, East Lothian.
 (March, 1900).
 O'REILLY, Mr. NICHOLAS S., 9, Royal Crescent, Ramsgate, Kent.
 (Dec., 1894).
 OSBALDESTON, Mr. W., 2, St. John Street, Preston, Lancashire.
 (June, 1895).*
 OWEN, Mr. J. A., 41, King's Road, Brighton. (April, 1895).
 PAGE, Mr. WESLEY T., F.Z.S., 6, Rylett Crescent, Shepherd's Bush,
 London, W. (May, 1897).
 PARKER, Mr. WM. E., Beacon Farm, Overton, Frodsham, Cheshire.
 (Aug., 1900).
 PEARSON, Mr. A. A., Vesper Road, Kirkstall, Leeds. (Nov., 1897).
 PERRING, Mr. C. S. R., 144a, Queen Victoria Street, London, E.C.
 (Sept., 1895).
 PERRIER, Mrs. LUMLEY, Saville House, Twickenham. (Feb., 1899).
 PHILLIPPS, Master NOEL, 21, Addison Gardens, Kensington, London, W.
 (Nov., 1901).
 PHILLIPPS, Mr. R., 26, Cromwell Grove, West Kensington Park, London,
 W. (Orig. Mem.)*

- PHILLIPPS, Mrs. R., 26, Cromwell Grove, West Kensington Park, London, W. (Orig. Mem.)
- PITT, Mrs., The Nest, Torquay. (Dec., 1894).
- PLOMLEY, Dr. J. F., Knightrider House, Maidstone. (Feb., 1898).
- RATHBORNE, Mr. HENRY B., Dunsinea House, Phoenix Park, Dublin. (May, 1901).
- REAY, Mr. J. H. A., 7, Rosemount, Wallington, Surrey. (April, 1898).
- REID, Mrs., Funchal, Madeira. (Feb., 1895).
- RICHARD, Mr. E., Hotel Metropole, Brighton. (Orig. Mem.)
- ROBERTS, Mr. NORMAN B., Ashdell Cottage, Sheffield. (Feb., 1898).
- ROBERTSON, Mrs. J. P., Bishops Tachbrook, Leamington, Warwick. (Jan., 1900).
- ROGERS, Miss G. COXWELL, Park Gate, Cheltenham. (Dec., 1895).
- ROTCH, Mr. CLAUDE D., 3, Beach Lawn, Waterloo, near Liverpool. (June, 1897).
- ROTHERA, Mr. C. L., B. A., Hazelwood, Forest Grove, Nottingham. (July, 1895).
- ROTTSCHILD, The Hon. W., M.P., Tring Park, Herts. (Jan., 1900).
- SALT, Dr. E. G., 59, George Square, Edinburgh. (July, 1895).
- SAVAGE, Mr. A., 3, Rue Bihorel, Bihorel, Rouen, Seine Inférieure, France. (April, 1895).
- SAVEGE, Dr. GEORGE, 24, Railway Street, Beverley. (Oct., 1896).
- SCOTT, Mr. W. E. D., Princetown Museum, Princetown, New Jersey, U.S.A. (June, 1900).
- SCRIVENS, Miss, Millfield, Bexhill-on-Sea, Sussex. (July, 1895).
- SECRETARY, The, Natural History Society, Rugby School, Rugby. (Orig. Mem.)
- SERGEANT, Mr. J., 10, London Street, Southport. (Orig. Mem.) *
- SETH-SMITH, Mr. DAVID, F.Z.S., M.B.O.U., Glengarry, Canning Road, Croydon. (Dec., 1894).
- SHARP, Miss M. D., Spring Gardens, Ringwood, Hants. (Orig. Mem.)
- SHEPHERD, Miss B., The Den, Walton-on-Thames. (April, 1901).
- SHERBROOKE, Mrs. K., Keldholme Priory, Kirby Moorside, Yorkshire. (March, 1897).
- SIMPSON, Mr. ARCHIBALD, 25, Barton View, Beeston Hill, Leeds. (Feb., 1901).
- SIVEWRIGHT, Miss H. A., The Rise, Headington Hill, Oxford. (Dec., 1895).
- SLATER, Mr. ARTHUR A., Prescott Road, St. Helens. (Nov., 1894).
- SMART, Mr. JOHN, 12, Royal Crescent, Edinburgh. (Nov., 1894).
- SMITH, Mr. H. B., Grangefield, Park Road South, Birkenhead. (June, 1895).*
- SMITH, Mr. E. F., 133, Alderson Road, Sheffield. (Oct., 1898).
- SOPER, Mrs. GARLAND, Harestone, Caterham Valley. (Nov., 1899).
- SPEED, Mr. CHARLES, 42, Garth Road, Bangor, Wales. (Dec., 1894).
- SPEED, Mr. HEDLEY, 12, Victoria Park, Bangor, Wales. (Nov., 1900).
- ST. QUINTIN, Mr. W. H., Scampston Hall, Rillington, York. (Orig. Mem.)
- STANSFELD, Mr. JOHN, Dunninald, Montrose, N.B. (Dec., 1896).
- STANYFORTH, Mrs., Kirk Hammerton Hall, York. (Nov., 1897).
- STEVENS, Mr. W. E., Punchbowl Hotel, Lowther Street, York. (June, 1899).
- STORY, Mr. J., 7, Blenheim Terrace, St. John's Wood, N.W. (Orig. Mem.)*
- STURTON-JOHNSON, Miss, Ortava House, Ore, Hastings. (May, 1897).
- SWAILES, Mr. GEORGE C., Beverley, Yorks. (June, 1895).

- SWAYSLAND, Mr. W., 47, Queen's Road, Brighton. (Orig. Mem.) *
- SWIFT, Mr. DONALD, 58, Avenue Road, Crouch End, N. (Dec., 1898).
- SWINFEN-BROWN, Mrs. LAURA, Swinfen Hall, Lichfield. (Feb., 1898).
- TATE, Miss M. M., Allerburn, Alnwick. (May, 1900).
- TATE, Mr. ALAN, 229, Allen Street, Sheffield. (June, 1897).
- TAYLOR, Mr. WM. C. E., 34, Queen Street, Scarborough. (Aug., 1901).
- THOM, Mr. A. A., Birkacre House, Birkacre, near Chorley. (June, 1895).*
- THOMAS, Mr. HENRY, 78, Harlow Terrace, Harrogate. (Jan., 1895).
- THOMAS, Miss, Hemsworth Rectory, Wakefield. (March, 1899).
- THOMASSET, Mr. BERNARD C., West Wickham, by Beckenham, Kent. (July, 1896).
- THOMPSON, Mrs. WALDEGRAVE, Forest Lodge, 23, Ravenscourt Park, W. (Dec., 1895).
- THOMPSON, Lady, Government House, St. Lucia. (May, 1900).
- THURSBY, Mrs., Bank Hall, Burnley. (June, 1895).*
- TODD, Mr. R. A., Honeyden, Foot's Cray, Kent. (June, 1895).
- TOPHAM, Mr. WILLIAM, The Hill, Spondon, Derby. (Feb., 1895).*
- TOWNEND, Mr. FRANK H., 26, Dornton Road, South Croydon, Surrey. (May, 1895).*
- TOWNSEND, Mr. STANLEY M., 3, Swift Street, Fulham, S.W. (Sept., 1898).
- TURNER, Mr. THOMAS, J.P., Cullompton, Devon. (Dec., 1895).
- VALENTINE, Mr. E., Highfield, Workington. (May, 1899).
- VERRALL, Mr. CLAUDE H., Johannesburg, Streatham Common, S.W. (May, 1897).
- WARD, The Hon. Mrs. SOMERSET, Isle o' Valla House, Downpatrick, Ireland. (Aug., 1897).
- WALKER, Miss H. K. O., Chesham, Bury, Lancashire, (Feb., 1895).
- WATSON, Mr. JOHN, Wentbridge Lodge, Pontefract. (Sept., 1900).
- WEST, Miss E. E., The Homestead, Hawthorne Road, Bickley Park, Kent. (April, 1898).*
- WHYTEHEAD, Mr. T. B., Acombe House, York. (April, 1897).
- WIENER, Mr. AUG. F., 4, Bedford Place, Russell Square, W.C. (July, 1896).
- WILDE, Miss, Little Gaddesden, Birkhampstead. (Dec., 1896).
- WILKINSON, Miss BEATRICE, End Cliffe, Manor Road, Edgbaston, Birmingham. (Dec., 1894).
- WILLIAMS, Mrs. LESLIE, 21, Bathwick Hill, Bath. (June, 1895).
- WILLIAMS, Dr. J. D., 93, Newport Road, Cardiff. (Feb., 1897).
- WRIGHT, Mrs. G. J., 3, Rose Villas, Picton Road, Ramsgate. (Feb., 1898).
- WYLIE, Mr. A. C., Hillside, Woodspeen, Newbury. (Sept., 1900).
- YARBOROUGH, Mrs., Campsmount, Doncaster, (Nov., 1899).

RULES OF THE AVICULTURAL SOCIETY.

1.—The name of the Society shall be "THE AVICULTURAL SOCIETY," and its objects shall be the study of Foreign and British Birds. Poultry, Pigeons, and Canaries shall be outside the scope of the Society.

2.—The Officers of the Society shall be elected annually by the members in manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Treasurer, a Secretary, an Editor, an Auditor, a Scrutineer, and a Council of twelve members. The Secretary, Editor, and Treasurer shall be *ex-officio* members of the Council.

3.—Each Member shall pay an annual subscription of 10/-, to be due and payable in advance on the 1st of November in each year. New members shall pay an entrance fee of 2/6. Any member whose subscription or entrance fee shall be four months overdue shall cease to be a member of the Society, and notice of his having ceased to be a member, and of the cause, shall be inserted in the Magazine.

4.—New members shall be proposed in writing; and the name and address of every person thus proposed, with the name of the member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two members, he shall be deemed to be duly elected. If five members shall lodge with the Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more members (but less than five) shall object to any candidate, the Secretary shall announce in the next number of the Magazine that such objections have been lodged (but shall not disclose the names of the objectors), and shall request the members to vote upon the question of the election of such candidate. Members shall record their votes in sealed letters addressed to the Scrutineer, and a candidate shall not be elected unless two-thirds of the votes recorded be in his favour; nor shall a candidate be elected if five or more votes be recorded against his election.

5.—The Magazine of the Society shall be issued on the first day of every month, and forwarded, post free, to each member. The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Council). The Secretary and Editor shall respectively refer all matters of doubt or difficulty to the Council. The decision of the majority of the Council shall be final and conclusive in all matters.

6.—The election of officers shall take place every year between the 1st and 14th of October. All candidates must be proposed by one member and seconded by another member (in writing) before they shall be eligible for election; but this shall not apply to officers willing to stand for re-election to the same office. All such proposals which have been duly seconded must be sent to the Secretary before the 14th of September. The Secretary shall prepare a voting paper containing a list of the candidates, showing the offices for which they are respectively seeking election or re-election, and shall send a copy of such voting paper to each member of the Society with the October number of the Magazine. Each member shall make a cross (X) opposite the names of those for whom he desires to vote, and shall sign the voting paper at the foot, and send it to the Scrutineer in

a sealed envelope, before the 14th of October. The Scrutineer shall prepare a written return of the officers elected, showing the number of the votes recorded for each candidate, and send it to the Secretary before the 21st of October for publication in the November number of the Magazine. In the event of an equality of votes, the President shall have a casting vote.

7.—It shall be lawful for the Council to delegate any of their powers to a Committee of not less than three.

8.—The Council (but not a Committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit.

9.—The Council shall have power to expel any member from the Society at any time without assigning any reason.

10.—All members intending to resign their membership at the end of the current year of the Society shall give notice of their intention to the Secretary before the 14th of October, and all members who do not so give notice shall continue to be members for the year following, and shall be liable for their subscriptions accordingly.

11.—Neither the office of Scrutineer nor the office of Auditor shall be held for two consecutive years by the same person.

12.—The Scrutineer shall not reveal to any person how any member shall have voted.

13.—If any office shall become vacant at any time, other than at the end of the Society's year, the Council shall have power to nominate any member of the Society to fill the vacancy until the expiration of the then current year.

THE SOCIETY'S MEDAL.

The Medal is awarded to every member who succeeds in breeding any species of bird which has not previously been known to breed in captivity in the United Kingdom. Any member wishing to obtain the Medal must send a detailed account to the Secretary, for publication in the Magazine, within ten weeks from the date of hatching of the young, and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents. The decision of the Committee shall be final.

The Medal is struck in bronze, and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—Founded 1894." On the reverse is the following inscription: "Awarded to (*name of donee*) for rearing young of (*name of species*) a species not previously bred in captivity in the United Kingdom.

Members to whom Medals have been awarded.

Mr. R. A. TODD, for breeding *Poephila acuticauda* in 1897.

Mr. GEORGE E. BOUSKILL, for breeding *Cyanoramphus auriceps* in 1897.

Mr. E. G. B. MEADE-WALDO, for breeding *Excofactoria chinensis* in 1898.

The Rev. C. D. FARRAR, for breeding *Lagonosticta minima* in 1898.

Mr. R. PHILLIPS, for breeding *Melanocorypha yellowi* in 1899.

The Rev. C. D. FARRAR, for breeding *Cyanospiza ciris* in 1899.

The Rev. C. D. FARRAR, for breeding *Polytelus barrabandi* in 1900.

The Rules under which the Society's Medal has hitherto been granted are under consideration and possible revision. By no Society of repute that we are acquainted with are Medals distributed so lightly as our Medal has been in the past; and Medals that are lightly distributed may come to be lightly esteemed. Nevertheless the original idea in awarding the Medal—that of encouraging aviculture—must not be lost sight of. We hope to be able to print the amended Rules in our next issue.

Under the Rules which have been in force up to the end of the avicultural year just closed, the members whose names are given below have reared the young of species which it is believed have not been previously reared in this country. Members and others are invited to examine the list, and are requested to immediately communicate with the Secretary should they be aware of any earlier instance of the rearing of the young of any of the species mentioned. The account of the breeding of each species may be found at the page indicated. These are in addition to those to whom the medal has already been awarded this year.

Page 165—The Cape Sparrow, by Mr. SETH-SMITH.

„ 191—Leadbeater's Cockatoo, by Mrs. JOHNSTONE.

„ 192—The Andaman Starling, by the Rev. C. D. FARRAR.

„ 197—The Black-headed or Pagoda Mynah, by the Rev. C. D. FARRAR.

„ 217—The European Roller, by Mr. ST. QUINTIN.

„ 219—The Rufous-tailed Grassfinch, by Mr. ALF. F. NICHOLSON.

* The Orange-cheeked Waxbill, by Miss R. ALDERSON.

* The South African Eagle Owl, by Mr. BONHOTE.

POST MORTEM EXAMINATIONS.

For a long time the Society has felt the want of some competent person willing to undertake the examination of dead birds, who would report through our columns, for the general good, the causes of the deaths of our feathered friends. Many unsuspected errors in our mode of dealing with our birds are occasionally brought to light by *post mortem* examinations, and consequently the lives of the survivors saved and prolonged, other readers likewise profiting by the warnings disclosed.

It is, therefore, with sincere pleasure that we are enabled to announce to our members (for the privilege is reserved to members of the Avicultural Society) that Mr. ARTHUR GILL, a member of our Council, has most kindly offered to step into the breach, and, without fee, make the desired examinations. Our cordial thanks are due to Mr. Gill for this valuable assistance.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. Gill (Veterinary Establishment, Bexley Heath, Kent), and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be forwarded to Mr. Gill.

* In these two cases, Medals cannot be awarded unless detailed accounts of the breeding are duly furnished for publication in our Magazine. Mr. Gedney states that the young of the Orange-cheeked Waxbill have been reared by his Zebra Finches, to whose nest the eggs had been transferred; and other cases may perhaps be known to some of our members.

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AUSTRALIAN CRANES NESTING IN ENGLAND.

By the Rev. HUBERT D. ASTLEY, M.A., F.Z.S.

In the year 1852 the splendid Native Companion Crane of Australia, the only species of the Crane family in the whole of that huge continent, was imported into Europe, and since 1857 with regularity. All the principal European zoological societies have kept these birds from that time up till the present, but never, until this year, have any of them been known to make a serious attempt to breed. Mr. Blaauw, in his beautiful "Monograph of the Cranes," states this to be the case, and Mr. Tegetmeier confirms it. The late Lord Lilford and other enthusiastic ornithologists and bird-lovers have kept Australian Cranes in private collections under most favourable circumstances, and yet they have failed to obtain even the partial success which I have been fortunate enough to achieve this summer.

Mr. Blaauw mentions the fact that an egg was laid in the Zoological Gardens of Amsterdam, but adds that he knows of no instance of this species of Crane having bred in captivity. By this I suppose he means that no eggs have been hatched, and also that none of these Cranes have truly nested. The pair of Australian Cranes that I have, were purchased in 1897, but not until this year have they ever attempted to nest. They live in a part of the park immediately in front of the house, and spend most of their time at the edge of the lake, a piece of water of about 8 acres. They seldom wander to any distance, and, indeed, seem to have marked out a boundary, beyond which they seldom or never pass; nor will they allow the other Cranes (Manchurian, Siberian, and European) to enter their claimed domain. The male Australian is pinioned, but the female has her full wings, although she does not often make use of them in flight. They are magnificent birds, in colour a fine bright grey, which is enhanced by the brilliant scarlet skin on the back of the head.

They do not stand as high as the stately Manchurian Cranes, nor, again, as the Sarus Crane of India, but they are not far off those species in size, and are taller than the common Crane, a bird of no mean stature.

In May last the Australians showed evident signs of an intention to breed, and began to build a nest on the immediate margin of the lake, composed of dead rushes and a few sticks. But the situation did not please them, and they built a second nest a few yards farther along, under the overhanging boughs of a large beech tree, but again close to the water's edge, though in a less damp spot. The female bird took short flights of a morning when her mate was courting her, and it was a fine sight as the great bird flapped her broad pinions and flew on a level with the tops of the tallest trees, her image reflected in the lake as she passed over it. Towards the end of May she laid her two eggs, the usual complement of all Cranes; but her possession of them was short, for one was very soon stolen (a Great Black-backed Gull was the supposed thief), and the other, in consequence of the theft, was removed, to be incubated by a farmyard hen, who, however, failed to hatch it. But in eight days' time the Crane laid the first of a second batch of eggs in the same nest as before, omitting, as she had previously done, one day between the production of the first and second egg. On this second clutch she sat steadily for ten days, the male bird in the meanwhile attacking with much fury any human passer-by, and following people for some distance until he saw them safely off the premises. Then, for the second time, the eggs were taken, both disappearing simultaneously. This time suspicion rested upon the Jackdaws; or it may have been a pair of Herring-gulls, which had till then appeared perfectly innocent of contemplating such destruction. The Great Black-backed Gull had been removed; in fact, found guilty and imprisoned.

In any case, I discovered the skin of one of the eggs in the water of the lake. The loss was all the more aggravating, inasmuch as the skin was covered with veins, showing that the eggs were fertile, and that young birds were forming in the shells. Two sets of eggs having been laid, I gave up all idea of any more until next spring, when, to my astonishment, some ten days after, the female bird once more took up her position on the same nest, which she added to slightly and rearranged. In a fortnight from the disappearance of the second clutch, the first egg of a third one was laid, which was again followed by another egg two days afterwards.

But, alas, and alas ! after the Crane had sat only a few days, the eggs once more were taken. War had been waged against Jackdaws and Rooks, which had stolen a lot of eggs laid by different species of ducks, but yet either Jackdaws or Rooks were the thieves on this occasion, for the shells of the two eggs were found dropped in the grass, at some distance from the nest, sucked clean, except for a few veins on the skin within the shell, and with tell-tale upon the latter of the blows made by the points of the culprits' bills before they effected their object, and finally gained an entrance to the contents. Surely that was the end of all things for the first year of the twentieth century ! But in August, about a fortnight after this last calamity, the female Australian Crane was once more to be seen rearranging her nest, and sitting on it. And once more this pertinacious and prolific bird laid, for the fourth time of asking, two eggs, quite as fine and large, moreover, as any of their predecessors, if not more so.

The eggs are about the size of those of a Goose, of a creamy colour, spotted and blotched, chiefly at the thicker end, with dull red and grey. Then I hired boys to watch near by from early morn to dewy eve, and for ten days all went well, except that the female bird seemed to sit less steadily than hitherto. On the tenth day came the news that the eggs had both disappeared between 5 a.m. and 9 p.m.! Culprits this time either rats or Jackdaws, the suspicion resting upon the former ; but not the vestige of a shell was discovered. I felt as sorry for the poor Cranes as I did for myself, and they evinced their disappointment by standing over the nest and loudly trumpeting at intervals. Mr. Tegetmeier wrote in the *Field* of July 20th. last as follows : "A series of very interesting announcements respecting the nesting of the Australian Crane (*Grus australasiana*) has appeared in the *Field* during the last few weeks. In the number for June 1st. the Rev. Hubert D. Astley made the important announcement that his Australian Cranes, known as the Native Companion of the Colonists, had nested. . . . This is, I believe, the first example of this species laying in Europe. . . . It is not only of interest to record the breeding of the Australian Crane for the first time in the Northern Hemisphere, but it is also of considerable physiological import to be able to record the rapid production of eggs in a creature that, had she not been molested, would have laid only one pair during the year."

[The above most interesting article appeared in *Country Life* of October 5th. last, and is reprinted by permission, and the illustration which appears as our frontispiece this month was drawn by Mr. Frohawk from a photograph by Mr. Astley, and is reproduced from the *Field* by the courtesy of Mr. W. B. Tegetmeier.—E.D.]

AVICULTURE.

By the Rev. C. D. FARRAR.

There is a distinct charm in aviculture. It can be carried on anywhere: in a back slum in S. Giles', in a Belgravian mansion, in a country vicarage, or in a suburban villa—and you will always enjoy yourself; and what is more important about this enjoyment is this, that you will not embitter your present, nor endanger your future, by getting into a bad temper, whether you are successful or not, provided always that you are a true bird-lover.

This, notoriously, is not the case with *other* sports. I have been assured by an experienced man that it makes you feel "awfully bad" when, after a long and weary tramp over the fallows, you at last get a wretched chance at a wild covey—and *miss*; and as for football, hockey, cricket, fishing, and golf, I need hardly speak of the uncharitable feelings they engender towards umpires and successful opponents!

When I first went in for birds, I knew no more about them than does a Kindergarten Board School child about South Africa. I did not mention the fact, by the way, and a casual observer might have thought that I had spent my youth in aviculture. The birds "that caused me to fall" were a pair of Zebra Finches in a bird dealer's window. These birds have much to answer for. They cost me seven shillings and sixpence; but how many seven and sixes have followed that first one I should tremble to say. I luxuriated in their exquisite beauty; little thinking or knowing what there was besides beauty, as Allah in mercy hid the Book of Fate.

Who would have dared to prophesy that one pair of Zebra Finches would one day necessitate the erection of twelve huge aviaries!

I know of no more charming way of spending an afternoon than to sit down quietly and watch the ways of the bird world around you. If you keep quiet, the birds take no notice of you and go on with their ordinary avocations, under your eyes, hunting and playing and feeding and fighting—for sad to relate, in spite of good Dr. Watts, birds in their little nests do *not* agree, nor out of them either, for that matter—until something frightens them, and then there is a general stampede, a sort of "general post."

It does some people good to go and see another man's birds; it does another a lot of harm. It raises feelings of

kleptomania; he will go to a neighbour's aviary, without any intention of coveting, and you will see him go home full of envy hatred, malice, and all uncharitableness. Do not imagine, sister or brother aviculturist, that I am hinting that the gentle art is bad for the moral nature of people like you and me, but it is bad for some people.

You or your neighbour, like most of us, can resist any thing but temptation; he will resist attempts to reform him, attempts to make him tell the truth, attempts to keep him tidy; he will resist them *painfully*. But give him a real temptation, breed something that he can't or hasn't bred, and he will succumb without a struggle!

From time to time I think that all aviculturists, living within visiting distance, ought to go and see their brother aviculturists; on the same principle as led a gloomy government official on the Gold Coast to visit the local cemetery, because, as he said, he wanted to get used to the place before staying there permanently. He used to take his visitor across the well kept grass to the newly dug graves, each covered with a wooden hood, in a most business like way. He said nothing, but waved his hand with a take-your-choice, they-are-both-quite-ready style. "We have to bring them here very quickly you know." Well, I always feel like that when I go to see a friend's aviary. I always want to go and see the cemetery. You always find people denying having any deaths, if they can, without committing *violent perjury*; if they cannot deny it, they will try and turn the conversation.

Some enthusiastic friends, when they come to see me, always want to see the "pretty nests." I sternly refuse to gratify what is, no doubt, quite "natural curiosity." I know we are told that birds don't mind it. Mine do; and so we must diminish dead certainties to the level of sporting chances, or one would never get on.

I should say that, on the whole and unless very severely tried, aviculturists are a truthful set of men. I will give you an example. I once, in visiting a friend's aviary, found a nest *which he said he did not know of*: demonstrating that an aviculturist can speak the truth!

Another pleasing trait in my brother aviculturists I find to be that, if there is danger ahead, they wish that I should take first risks. If some particularly delicate and, as a consequence, expensive birds arrive, I have a friend who always *strongly advises* that I should have them. Much as I once read one

late Miss Kingsley's black fellows did when entering on a dangerous path; he always urged that she should go up the road—alone—by herself—first—a mile ahead of the party, and the next time, perhaps, the enemy might not shoot at sight if they happened to notice that she was something queer, and that she might explain things, and then the rest of the party would follow!!

I have often acted that suggested part in bird-dom! I suppose that some day the avicultural enthusiast will meet with the sad fate of the pitcher that went too oft to the well; he will get "stony broke."

My ignorance in birds is still colossal; and although the vast cavity in my mind is only as yet very partially filled up, it nevertheless contains a great deal of curious information. I say curious, advisedly; for many books on birds seem to suggest that, over the minds of all young beginners, a placard has been set up with a sort of advertisement to this effect: "Rubbish may be shot here." On that suggestion they had all apparently acted.

I found in these books statements made which subsequent experience has completely falsified; and, concerning some of the marvellous accounts of nesting and reproduction therein recorded, I hold the opinion that the old Scotch lady had regarding certain passages in the history of the early Jews—that "it was a long time ago, and habelings it was not true."

Sometimes, you know, a man will say to you, "I've done so and so." Its a bit too large for my belief hatch, but, if you like to get it down yours, you're free and welcome to ship it.

I sha'n't do that. Mine is a record of actual experience, often bitter and costly; but, such as it is, I humbly lay it before the reader; and if you ever go to what Aristophanes calls the "kingdom of birds," you will find things to be as I have said. I am anxious to make a book that people who do not know much about birds may believe, even if they criticise its points, so I give details that a more showy writer would omit.

Aviculture is like the Arctic regions in one particular, that when you have once visited those regions, you want to go back there again. I know there are some who deny this; but if you were to tell many of those who will, in a fit of the blues, tell you most emphatically that, if they could "sell out all those beastly birds, see if ever they would go in for them again"; and you were to take them at their word, and buy them out—you would find them some fine day, in the not far distant

future, sneaking back apologetically to their old love. *Brevi spatio interjecto*, as Cæsar used to say in the middle of a bad battle. I said to a friend once, after a bad loss, "Now if you want some cheap birds, this is your opportunity." He smiled derisively; and, when he came the following week and found me hard at it, he pretended a genuine surprise, but no doubt formed an even higher opinion of my folly than he had before, which is saying a good deal.

And now, as the parsons say, one word in conclusion. Whatever aviculture may have to say against me—for my continual and unalterable desire for something new; my intolerable habit of getting into hot water; or of bringing things into the house which emit unexpectedly and at short notice varied and awful stench—she cannot say but that I have been a diligent pupil, who has honestly tried to learn the lessons she had tried to teach me; though some of the lessons have been very costly.

One by one I lost my old ideas derived from books, weighed them against the real bird life I saw around me, and, finding them either worthless or wanting, did metaphorically what the Ephesians did of old with their books, "burnt them publicly before all men;" and I can truthfully say to-day that what little I know about birds, I have learnt from the birds themselves—they have been my teachers.

Those who have loved birds in life will, I fancy, find the ruling passion strong in death. Who does not remember the pathetic tale of the old carter, who lay a-dying. Kindly hands had smoothed his pillow, tender hands had wiped the death sweat from his brow; was there anything else that he would like to have done? There was a wistful pathos in his voice as he gasped his yearning to "just see t'osses once again." Immediately his bed was moved quietly towards the window, and from stable and pasture all the horses were driven into the farmyard, until the dying man's eyes rested on the old mare he loved the best. Then, with a faint "Tchk, tchk! Daisy!" he turned away his head and burst into tears. And so he died. But when the hearse came to bear him away to the little God's Acre, the dead man's mistress had the undertaker's horse taken out of the shafts, and Daisy put in to take him to his last resting place.

Will it not be so with some of us when the end draws near? We, too, shall want "one last look at the birds," those feathered treasures we have loved so well—one last look—until we wake up in the Better Land.

“ There are men both wise and good, who hold that in a future state
 Dumb creatures we have cherished here below
 Shall give us joyous greeting as we pass the pearly gates :
 Is it folly that I hope it may be so ? ”

PITTAS IN CAPTIVITY.

By the Rev. HUBERT D. ASTLEY, M.A., F.Z.S.

I have been fortunate enough to secure a hand-reared brood of four Pittas (*P. bengalensis*) which were brought from India, and landed on the 19th of September in the London Docks.

They seem strong and healthy, and feed well upon an insectivorous mixture (Insectivorous Food Co.) and mealworms. They have also enjoyed ‘daddy-long-legs’ whilst in season, which are easily caught of a morning on the outside of window sills, etc.

Gould figures and describes these birds (‘Birds of Asia,’ Vol. V.) as having black bills with fleshy brown bases, whereas my birds have almost entirely red bills with a dash of brown on them, which latter colour has the appearance of fading away into red: the brown tint seemingly being a feature of the immature bird.

My Pittas are moulting, the lighter fawn of the breast appearing through the dull brown of the first plumage. The whole colouring is the same as in the adult bird (as figured in Gould’s ‘Birds of Asia,’) except that it is altogether duller.

It will be most interesting to see whether these birds will live well in captivity, and whether it would be possible to breed them in an aviary given up to them only.

They are brought over alive only very rarely. For the edification of those who are not familiar with the characteristics of this most beautiful family of birds, I would add that in size and shape they are mostly about that of our Water Ouzel (or Dipper) with the same short bobbing tail.

The Pittas are all bright and, for the most part, gorgeously coloured birds. The Bengal Pitta has broad longitudinal stripes of dark brown and white on the whole head and face; the back, green; the wings, black with two large patches of white on the primaries; shoulders, pale blue; throat, white; breast, fawn colour; under tail coverts and belly, scarlet; upper tail coverts, sky blue; tail, black at base, blue at the tip. The legs are flesh-

coloured, long and slender, as these birds live chiefly on the ground, where they move with great activity, taking long hops.

My birds are extremely tame and fearless, and also very pugnacious, tilting and sparring at one another like game cocks, so that in all probability one pair of Pittas in a wild state, would demand a fairly large area to themselves for the purposes of nesting.

A pair of Pittas were exhibited at the Crystal Palace Bird Show a few years ago, which, if I remember rightly, were the Hooded Pitta (*P. cucullata*).

The Pittas known as Elliot's, Gurney's, Bornean, Neck-laced, etc., are dreams of beauty, and make one's mouth water to possess them alive as pets, when looking on their coloured portraits.

NOTE BY THE EDITOR.

Having undertaken to edit the *Avicultural Magazine*, may I ask all our members to help me by sending something for publication therein. We have not had much about British birds lately, and I should be very glad if our members would record the result of their observation of anything of interest concerning our native species.

I should also be glad to receive accounts of the breeding results of the past season in the aviaries of members.

Descriptions of members' aviaries are always welcome and I should like to receive photographs of birds with a view to reproducing them in the Magazine.

May I ask all our members to help to make our Magazine a still further success.

D. SETH-SMITH.

BIRD NOTES.

Some discussion has recently taken place in the daily Press as to the damage wrought by birds on fruit. The remedies suggested are many and various, but the consensus of opinion seems to be that the only adequate means of protection to bush- and ground-fruit is to thoroughly net it over. We have often been told that the birds eat the fruit because they require moisture, and if dishes of water be placed about the garden the fruit will not be touched. This theory is, however, exploded by a writer to the *Standard*, who had most of his fruit taken by the birds although a stream of the purest water ran through his garden.

Such fruit as pears and apples is most difficult to protect from the ravages of Tits, who peck holes in it close to the stem, when the

rain and insects get in and it is ruined. We have known whole trees of choice fruit spoiled in this way, and growers certainly have just cause for complaint. Valuable pears can be protected by means of discs of cardboard about two inches in diameter, with a hole in the centre for the stalk, and a slit, by means of which it can be fixed on with little trouble.

Probably some of the commoner species of fruit-eating birds are too numerous in certain districts, and need thinning down; but we would prefer to leave Nature to deal with them, as she most effectually does when she sends us a prolonged frost.

The case of the House Sparrow is, however, different: and there is no doubt whatever that it is far too numerous in almost every part of the land. We have most of us seen abundant proof of the damage done to the farmers' crops by this bird: the service it performs by devouring the insects being more than counterbalanced by the quantity of grain eaten. It is also known to drive away more useful and ornamental species. Were it reduced to one-tenth its present numbers the country would undoubtedly benefit thereby.

The occurrence at the mouth of the Thames of five Avocets is of no little interest, seeing how seldom the species is recorded nowadays in our Islands. These were seen on August 16th, on Canvey Island, by a writer to the *Field*, who mistook them for Oyster-catchers and shot one. We trust the remaining four escaped unmolested.

There has recently been some discussion in the columns of the *Field* as to the mode of progression, under water, of the Cormorant: some correspondents stating their belief that this species and its allies use their wings to aid them in capturing their prey below the surface. There seems, however, to be no doubt that this is a mistaken notion, the large wings of the Cormorants being adapted only for aerial transit, and quite unsuitable for movement under water, in which position they are kept tightly folded.

A most interesting letter appears in the *Field* of October 5th, from our esteemed member, the Rev. Hubert D. Astley, on the subject of "White Storks Remaining in England." Mr. Astley has for many years been in the habit of purchasing young storks from Holland in the early summer, and allowing them full liberty at Benham Park and Chequers Court. They have always remained in the neighbourhood (coming daily to be fed in front of the house) until the natural migration season arrived, when they have, in former years, invariably taken their departure. This year, however, Mr. Astley had two adult Storks, one (the female) pinioned, and the other, which rarely left its companion, with full wings. These seem to have acted as decoys to the young ones, which, up to the time of writing, had not left, although in former years the date of departure has never been later than August 15th. It is to be sincerely hoped that they will now remain and withstand the rigours of the winter, and that Mr. Astley may, in due course, realise his "long-dreamt-of pleasure of seeing storks on the house-tops in England on their nests."

We have received a copy of a small monthly called "Foreign Bird Notes." It is issued by a new Society calling itself the Foreign Bird Club, and contains several papers relating to the keeping and breeding of foreign birds in captivity. The Editor is Mr. H. R. Fillmer, the originator and founder of the Avicultural Society. We must all regret that Mr. Fillmer has seen fit to sever his connection with the Avicultural Society, and we much doubt the wisdom of starting another bird paper, but we think that perhaps his new cheap monthly may have tapped a new section of foreign bird keepers, who require a popular and unscientific journal, and therefore we hope the new venture will do good work in encouraging the keeping of foreign birds.

CORRESPONDENCE.

NESTING OF VIRGINIAN CARDINALS.

SIR,—In reply to Miss Hawke—My Virginian Nightingales have reared three fine young ones this season.

They share an aviary (24 ft. by 6 ft.) with pairs of Cockatiels, Zebra Finches, Cutthroats, White-headed Nuns, Black-headed Gouldians, three pairs Budgerigars, a Blue Robin, Liothrix, Lavender Finch, and Bengalese.

In the early spring the Virginians wished to nest; but no nest we could supply would satisfy the hen, and she eventually laid two eggs in a seed tin: then we hung up a wire basket, stuffed it with hay, shaping a hollow in the middle, and put in her eggs. She laid another egg in the seed tin, which was just above the basket; we put it in the basket and removed the tin; she then put a few blades of fresh grass round the edge, laid two more eggs, and sat steadily for twelve days, when three young ones were hatched.

The food in the aviary is always canary- and millet-seed; thin lunch biscuit soaked in hot water, squeezed dry and mixed with Abrahams' yolk of egg (two biscuits and about a dessertspoonful of egg); ants' eggs, cockroaches, scalded bread, and a few white oats. Mealworms we give as required.

For the first few days the hen did the feeding; the cock brought the food and was eager to try, but the hen took it from him and gave it to the nestlings herself; later both birds fed them. The mealworms were bitten up small at first, later they had their heads bitten off and were given whole. Biscuit and egg were given, also green peas and banana, and I think a few fresh ants' eggs and bits of cockroach; but I never saw them give dried ants' eggs. The cock often gave them soaked bread.

They feathered quickly, leaving the nest at the end of a fortnight. The parents continued to feed them even after their second nest had hatched, two of which died at the end of a fortnight; then we put the first youngsters into another aviary.

The parents laid and hatched again (two); but they fell victims to a hen Californian Quail which, with nine chicks, we were obliged to put in the Cardinals' aviary.

The Cardinals nested again and hatched three, but failed to rear them, and, as the parents had begun to moult, we removed the cock. The hen, however, laid four more eggs which we destroyed, and removed the nest.

She used the same nest all through; we added a little more hay, and she put in a few blades of grass. She sings beautifully and is very tame. Both the parents would beg for mealworms. The young ones—two hens and a cock—sing well, and are fine birds.

BELLE SHEPHERD.

LINNET IN A DECLINE; BREEDING GOLDFINCHES.

SIR,—Will you kindly advise me how to treat a Linnet, which is ailing. It has been in captivity three or four years, the last two in my aviary; but during the last few weeks it has become very thin, and is apparently suffering from a bad attack of indigestion. It has been fed on best Spanish canary-seed, red rape, and a little hemp occasionally; with plenty of groundsel, chickweed, and shepherd's purse. I cannot get it to eat egg-food, or soaked biscuits, or the seed contained in thistle and dandelion heads, though I think these would be beneficial.

Yesterday, he was so reduced and weak that I gave him five grains of Epsom salts in his drinking water, and he seems better for it; but he has a difficulty in cracking seed, and eats very little else but crushed hemp. Can you suggest any remedy that I can try? He has fits of great restlessness, when he seems to be seeking something. I would let him fly, but am afraid he might not find food, as he has been in captivity so long.

Can you tell me whether it is possible to breed Goldfinches in an aviary? I have been told it has been done, and should be very glad of any advice you can give me on the subject.

EMILY BRAMPTON.

The following reply was sent to Miss Brampton:

I fear that your Linnet is in a decline; and, if he will not eat soaked biscuit, I hardly see how you can save him. Two or three drops daily of Scott's Emulsion on biscuit might have done wonders for him.

If this were spring instead of autumn, I should think it quite safe to let the bird go: I do not think he would find any difficulty about feeding himself; but, with winter approaching, there would not be much chance for him.

I have bred Goldfinches in an aviary. They nested in converted Hartz cages (the pot, trough, and perch removed, the floor made solid with a piece of cigar-box lid, two of the short bars removed and that end turned forward for an entrance) hung upon two nails to prevent swinging.

The hen built the first nest, began to lay a day or two later, and began to sit when four eggs were deposited; she incubated thirteen days, hatched and reared three young; but before the latter flew, the cock built a second nest which she examined and slightly altered. She began to lay the following day—six eggs I think, all of which hatched; but both this family and a third (of five) were killed by the young of the first brood.

I supplied egg and biscuit just the same as for Canary-breeding, and gave plenty of groundsel.

A. G. BUTLER.

BREEDING PENNANTS AND BLOODWINGS.

SIR,—This year I have again to record the nesting of my Pennants, and the successful rearing of a fine brood. The young were marked exactly as all others have been (*vide* my articles in past numbers of the Magazine). The old birds, as I also said, are quite good to tell apart by their *tails*. They are, moreover, common or garden Pennants, and not half-bred Adelaides!

My Bloodwings also nested as usual. They laid four eggs and hatched three strong young ones. These lived for ten days; then one died and poisoned the nest, and the parents would not feed the other two. When I found them they were perfectly sweet and not in the least discoloured; but the other was like Solomon's love—black—but certainly not comely. Better luck next time!

One never knows what to do in these cases. If you touch the nest the old ones desert; if you leave a dead one in, the youngsters are allowed to perish.

I hope next season, if we all live and are well, to be able to record the breeding of several rare kinds of Parrakeets. C. D. FARRAR.

MOCKING-BIRD WITH COUGH, ETC.

SIR,—I have a Mocking-bird suffering from a bad cough, and would be much pleased to have advice. It troubles him in the day, but, curious enough, he never seems to suffer at night. It is quite a dry cough, as if he were choking and trying to get something up out of his throat. He feeds well on soft food and fruit, but refuses all insect food since getting this cold. He is fairly lively, but is getting a worn out look since getting this cold. I have kept him in a dry room, between 60° and 55°, but with no draughts.

So far as I can make out, he is *Mimus thenca* of Chili. He is a much larger bird than the North American, with a distinct eyebrow mark. I have also an *Icterus* Hangnest, which was sold to me as the Baltimore Oriole, but, on examination of skins, I should think it is *Icterus vulgaris*. Is not this the one usually imported? I examined a number in London the other day, and they appeared to be *vulgaris* not *jamaicæ*, as mostly stated. I find the Irish climate very damp for foreign birds, more especially in summer, when they are out. Very often in June we have wet days at about 45°. I enclose a photograph of my aviary: the two lower windows show the heated compartments for birds; one for the seed-eaters, the other for insectivorous species. H. B. RATHBORNE.

[We are much obliged to Mr. Rathborne for the photo, which gives a very clear view of his aviary.—ED.]

The following reply was sent to Mr. Rathborne:

The cough may be due either to a cold, or to indigestion. You do not say what soft food you give your birds, and there are several worthless ones on the market.

I think I have tried most of the foods offered to the public, and I find the best to be that prepared by our member Mr. Fulljames (almost the same as I prepare for my own birds). Some mixtures that are sold as food

for insectivorous birds appear to consist of nothing but broken grits and lard, whereas oatmeal sometimes is one of the ingredients of a so-called food.

An improperly nourished bird naturally is liable to any ailment, is sensitive to cold and has no power to throw one off. You should try ten drops of glycerine and a little gum arabic daily in the drinking-water for a week or so and, if the breathing improves and the coughing abates, give a mild tonic daily for another week—say six drops of tincture of iron in the drinking-water.

I think you are wrong about the *Icterus* being *I. vulgaris*. Few birds are imported from Venezuela and Colombia but many from S. E. Brazil, and I have no doubt that my bird (the common imported one) is *I. jamacaii*; but the description of the bill in the Museum Catalogue is incorrect, as it is dark slate colour with the basal half of the lower mandible whitish; the naked skin round the eye is pale blue and the iris pale clear primrose.

A. G. BUTLER.

OUR SECRETARY AND TREASURER.

The grateful thanks of the Society are due to Mr. J. L. Bonhote, who, for two years, has held the important and laborious posts of Secretary and Treasurer of the Society.

Mr. Bonhote is leaving England for several months, on a scientific expedition to the Bahamas we are told; but we hope to welcome him back amongst us next summer.

Mr. Phillipps takes up the post of Hon. Secretary, and Mr. St. Quintin that of Hon. Treasurer.

ERRATA—THE INDEX.

In the "Index to Subjects" of our last Volume,—Remove 'Kestrel—page 232' from amongst the Kingfishers, and insert above them.

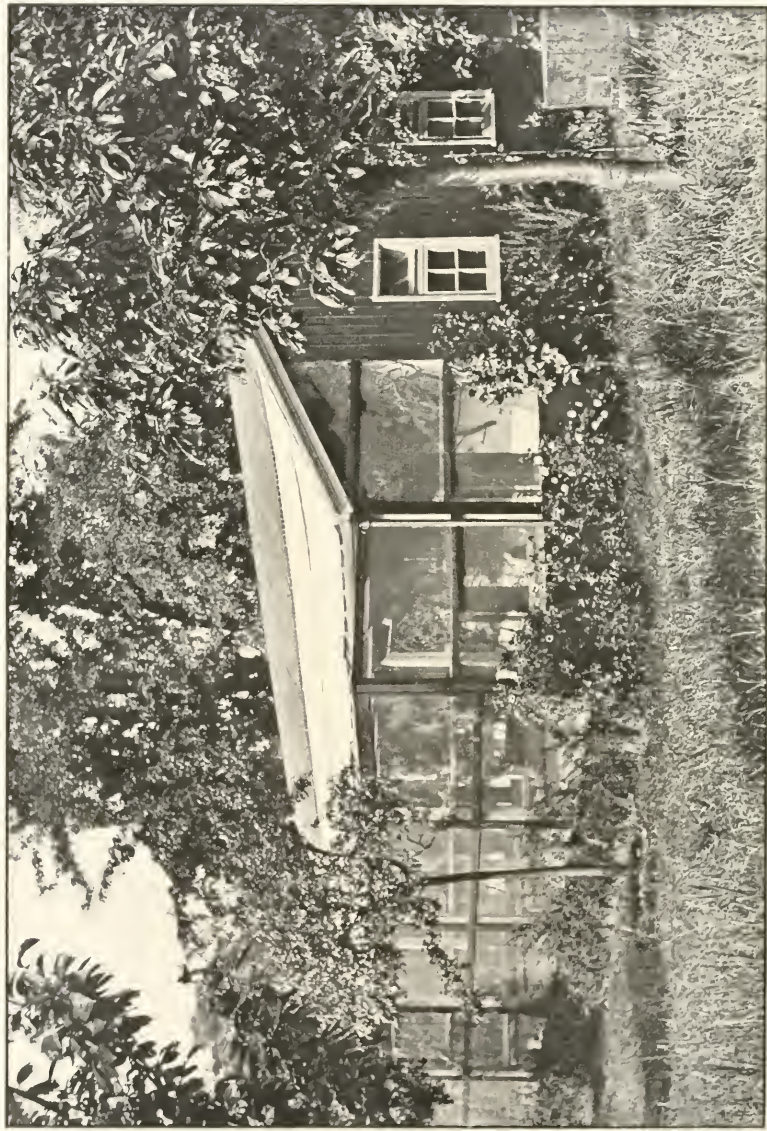


Photo. by Mr. C. Gaudesbrough.

MISS ALDERSON'S AVIARY.

THE
Avicultural Magazine,

BEING THE JOURNAL OF THE
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VOL. VIII.—No. 2.

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DECEMBER, 1901.

MY LATEST AVIARY.

By ROSIE ALDERSON.

This aviary, which was built last spring, was at first intended solely for Parrots and Parrakeets, but as yet I have only a few kinds, so it has become the home of many Doves and small birds as well.

I think it was after reading Dr. Greene's "Parrots in Captivity," with its attractive coloured plates, that I first began to wish to go in really for Parrakeets. Formerly I had a nervous idea that the aim and object of a Parrot's life was to bite everybody it came across, either with or without provocation. When I purchased my first Parrot, a little Senegal, I do not know which of us was the most frightened of the other, but it was not long before we each found out our mistake and became the closest friends, and I felt that to possess one Parrot was only to long for more.

Having decided to realize my ambition and put up a Parrot aviary, the first beginning was to find a site, and the next to draw my plans and write for some estimates. I found a clear space could be made in our old orchard, 32 ft. by 22 ft., the longest side facing south. It is a pretty situation with a tiny artificial streamlet running in front, and a picturesque old spreading apple tree overshadowing the eastern end.

I made several plans, but, on the kindly advice of one of our members, I discarded them, and adopted one something like his own, with a few alterations and additions.

From my width of 22 ft. I cut off 6ft. (on the north side) to form a passage running along the whole length of the aviary. The remaining piece of ground, 32 ft. by 16 ft., I divided into five divisions, each 16 ft. long by 6½ ft. wide (the centre one being slightly smaller). Each of these five compartments forms a separate aviary to itself, and is divided into a shelter, glass

roofed portion, and open flight, and is entered by a separate inner door of wood and wire.

From each end of the passage I cut off $6\frac{1}{2}$ ft., that at the eastern end for a small seed-room, and at the western end for a small extra aviary (each 6 ft. by $6\frac{1}{2}$ ft.) The latter has a window at one end, and a wood and wire door (the remaining part of this division being also wood and wire) opening into the passage. The seed-room is fitted with shelves for numerous articles, with a curtain hanging in front; there is also a bin made with five divisions for seed and brushes, rails for cloths, and everything needed for keeping the aviary in order. Like the small extra aviary it has a window at the end; and an outer wooden door gives entrance into the whole aviary. The seed-room is separated from the passage by a wooden division, and a wood and wire door. The passage is lighted by two windows, and has three large store cages let out on its north side.

The idea of having the passage so arranged (with the seed room at one end and the small aviary at the other) was that if need be the passage could be used as an extra aviary, the seed-room acting as a kind of double door, and so making the chance of a bird escaping a very small one.

Of the five aviaries in front, all have inner doors of wood and wire, the three centre ones opening into the passage, and the two outer ones into the seed-room and small aviary.

The shelters have wood and wire doors opening into the flights; and wooden shutters, if needed, fasten over the wire part of the doors, so that they can be entirely closed in winter and the shelters kept very warm. The birds are able to get into the shelters (after the doors are shut) through small holes, one in each aviary, with a ledge on each side which will hinge up if necessary. Each shelter has a window; in the three centre ones in the front part, in the two outer ones at the ends.

The glass roof is rather over five feet wide, and is glazed with ground glass, and covered inside with wire netting. In summer I found it got so hot that I was obliged to stretch an awning over it (as will be seen in the photograph) for the birds seemed to feel the heat very oppressive. By this means I kept it quite cool, and on a wet day it is a great advantage to have an *open* part of the aviary that is dry under foot. My first idea was to have this roof of metal, but I found glass was not very much more expensive, and I think it is a great improvement to having *all* the flights entirely open. The open part of the flights has a flat roof of half-inch wire netting, all the netting throughout

the aviary being of this size. The front of the aviary, that shown in the picture, is wire to within $1\frac{1}{2}$ ft. of the ground. At the ends the woodwork is brought 12 inches higher. The divisions between the aviaries is wood $2\frac{1}{2}$ ft., the rest wire. The roof of the aviary is corrugated iron lined with wood, and is fitted with spouting. The building is $6\frac{1}{2}$ ft. high at the eaves and 1 ft. at the ridge.

The floor is cemented all over, except in the open flights, where it is sodded with grass, half-inch netting being laid underneath as a protection against the inroads of vermin. In the centre of each of the open flights are fixed earthenware glazed baths (such as are used in cottages for sinks) 24 inches by 16 inches and 3 inches deep. I found it would have been better if I could have got them shallower, so to remedy this I cemented some small steps, made of common grey tiles, in each bath. The birds soon learnt to use them, and are now quite fearless in making their ablutions. I was amused the other day to see my hen Barnard's Parrakeet bathing. She splashed the water all over herself again and again, and made her wings so heavy with wet that when she came out she could hardly fly.

All the baths are brushed out, and freshly filled with water, rather over an inch deep, every day. They are fitted with a plug and waste pipe running underneath the whole length of the aviary, which carries off the dirty water into a dumb well. The passage and small aviary are also each fitted with a bath and waste pipe. Bamboo perches, about 18 inches long, are fixed into holes in different parts of the framework, but I think of trying some perches made of yellow tapped pine, as, though the bamboo are very nice, and are not destroyed by the Parrots, yet I fancy they are rather hard and cold to the birds' feet. Scotch fir branches are fastened up, with wire and nails, in each of the shelters and glass-roofed divisions.

Two metal, painted, boxes are hung up in each aviary for crushed biscuit and grit, and the seed is placed in brown glazed earthenware pans, which fit into a ring of iron screwed to the woodwork. The seed-pans can be lifted out with great ease, and have a flanged edge to prevent the seed being scattered. They are very clean looking, and were made, to my sketch, by Mr. Bramham at the Barum Pottery Works, Barnstaple, at a very reasonable cost.

The outside of the aviary is painted dark sage-green, with the windows, etc., in a much lighter shade. The inside is cream-colour, faced with very pale green. The combination is very

clean and cool-looking, and is done partly with paint, partly with whitewash.

The windows, at the suggestion of Mr. Walker, are made in the same way as in hunters' stables, the top sash pulling forward so that there is no down draught. The part that opens has a casing of wood and wire, so that, even when the window is pulled wide open, no bird can escape through it. Of course it is only in the *outside* windows that this precaution is needed, though all the windows are covered with wire netting, as a precaution against any bird flying against the glass. The size of each window is 2 ft. 3 inches by 3 ft. 5 inches.

And now having given a detailed, and I fear tedious, description of the aviary, I must give some idea of what it cost. I sent for three estimates, and selected one from Mr. Walker, Meersbrook Bank Works, Sheffield. He had several advantages in his favour, and his estimate was very much less than the other two. He had previously done work for me that had worn well. Mr. Walker came over from Sheffield and talked things over with me. I found him most obliging and ready with suggestions, telling me clearly the advantages, or the reverse, of each point under discussion. He strongly advocated a wooden lining to the roof; and I am very glad now that I followed his advice, and did not have it only of metal, as I proposed at first. The price of the actual framework was £46 5s., but to the original plan I added several improvements; and of course this sum did not include the cost of painting, brick foundations, levelling, and cement floor, and the waste pipes and bath arrangements, all of which latter items were done by local workmen.

The aviary was made in large sections at the Meersbrook Works, and took only a few days to erect, the rough cement floor, baths, &c., having been put down first. After the aviary was put up the final layer of cement was added, and also a narrow border of it round the inside edge of the open flights, as a precaution against vermin; and I should also add the aviary was erected on a loose square of bricks as a foundation.

The small wire run at the extreme right hand corner of the picture (which has been reproduced from an amateur's photograph) is part of a small aviary for my Californian Quails.

The principal items in the cost of the aviary were as follows :—

	£	s.	d.
Original estimate for aviary	46	5	0
Wood lining to roof	6	10	0
Glass roof and netting lining	5	4	6

Cages for passage.	Shelves for seed-room	..	1	8	6
Spouting .. .. .	..	..	2	0	0
Baths (7) .. .. .	..	..	2	4	6
Fixing baths, making dumb wells	..	..	5	18	9
Lead waste pipe .. .. .	..	..	2	5	0
Painting aviary .. .. .	..	..	10	2	9
Levelling, bricks, etc..	..	..	1	8	6
Cementing floor .. .. .	..	..	12	2	0
Total			<hr/> £95 9 6 <hr/>		

I should explain that the second dumb well was made to carry off the water from the spouting on the north side, and also partly for the advantage of another aviary a little distance away. Added to these expenses were many small items, such as seed-pots, fir branches, wooden nest boxes for the Parrakeets, etc., so that £100 is not too much to put down as the total cost. Of course it seems a great deal to spend, but aviaries are expensive buildings to put up, that is of course if you are determined to make your little prisoners as happy as possible: and surely that is the duty and pleasure of every bird-keeper.

I have given many details, thinking they might be of use to anyone thinking of putting up an aviary, as giving them some idea of the cost. Should any of our members be in the neighbourhood I should be very pleased to show them the aviary, or would send them photographs of the back and interior (which would explain it far better than I have done) and also more detailed particulars with a ground plan.

I do not by any means set up the aviary as a perfect one, but the birds (who should be the best judges) seem thoroughly happy in it. I should add that it is not heated in any way.

TWIN STUDIES.

By A. G. BUTLER, Ph.D.

In an article which I published in Vol. IV. of our Magazine (pp. 101-3), entitled "Scientific Aviculture," I attempted to show how the breeder of foreign birds might render the facts which come under his notice of value to the cabinet-naturalist: but the observations of the breeder by no means exhaust the treasures to which the student of living birds alone holds the key.

As I have pointed out in other articles, the aviculturist, in order to be successful in breeding, must learn to distinguish the sexes of his birds whilst yet alive. In many cases this can be

done by examining the form of the skull, the length and width of the bill, and the comparative length of the longer primaries : thus in my paper "On Sexual Distinctions, etc.," (Vol. III. pp. 104-6) I pointed out how various finches in which the plumage showed no marked difference could readily be sexed when taken in the hand and compared side by side, either by looking down at the two heads from above, or in profile.

Later, in one or two papers published in the 'Zoologist,' I called attention to the sexual differences in the wings of certain birds, the males of which showed comparatively longer primaries than the females. To these I added a short additional paper in Vol. VI. of our Magazine comparing the wings of various common finches, tending to show that this distinction was one worthy of study.

From what the late Mr. Abrahams told me, it seems probable that, in many cases, the males of Parrots may be distinguished from the females by the darker colouring of their irides ; but he also put me in the way of discovering another character, which (if constant, as that keen naturalist assured me it was) should prove of even greater value, both to the aviculturist, and to the cabinet-ornithologist :—

Observing that Mr. Abrahams only had to take a parrot in his hand in order to state unhesitatingly to what sex it belonged, I asked him to tell me how he managed it. He replied that it was a secret which it had taken him five years to discover, which therefore he did not care to share with other dealers (over whom it naturally gave him an advantage), but he was willing to enable me to discover it if I would promise not to make it generally known during his lifetime. In order to discover this sexual difference Mr. Abrahams diligently collected hundreds of dead parrots, carefully sexed them by dissection, prepared and labelled the skulls with name and sex ; and, having eventually got together a considerable number of skulls, he set to work to compare the males with the females. He told me that, having, after a careful study of his material, hit upon a well-defined difference, he had destroyed most of the skulls, as having answered their purpose, but he still retained a large box full.

Taking down a box from a shelf, my old friend placed side by side on a table the paired skulls of some five or six parrots belonging to widely different groups, and asked me to see if I could discover the character. Of course, as I had been accustomed to look for the differences in Finches, Thrushes, Crows, etc., in the crown and the upper mandible, I looked for similar

differences in the skulls of the parrots, until Mr. Abrahams told me I was looking at the wrong part of the skull; then, turning my attention to the lower jaw I saw it at a glance:—the posterior angle of the two *rami* of the lower jaw, was elongated and acute in the females, but comparatively short and rounded in the males. Thus, by taking a parrot in his hand, or even by stroking the side of the head, so as to enable him to feel the back of the jaw, Mr. Abrahams at once decided the sex.

A character like the above should certainly be studied, confirmed, or (if not invariably constant) disproved, by the student of dead parrots; to whom it might prove invaluable.

Curiously enough, I was speaking this year to Baron von Plessen (a great admirer of the *Psittacidæ*) respecting the sexual differences in the Grey Parrot, and he assured me that in Germany they always sexed this bird without difficulty by the form of the naked patch on the face which, in the males, was rounded behind, but in the females pointed. If this is so, it is a curious instance of correlation in form, without any apparent object, between a naked patch on the skin and the bones of the lower jaw.

That the bite of a female parrot is often (if not always) more severe than that of a male, will I think be admitted by those who have had much to do with handling them; and that this is not necessarily due to the more pointed upper mandible will be clear, if it can be shown that the jaw of the female offers a better surface for the attachment of muscle.

In studying the sexual differences in the form of the beak, the age of the bird must be taken into account. Thus, if it be a general rule (as I believe it is) that males of the Thrush family (*Turdidæ*) have a longer and narrower bill than the females, one must not conclude that this character will hold good in birds of the year; because even though (as in the case of the American Blue-bird, *Sialia sialis*) the young bird acquires its adult colouring in the year of its birth, the nestling character of the bill does not attain to its adult form until the bird is fully a year old. I believe it is this fact which has caused the cabinet-ornithologist to disbelieve in the constancy of the sexual characters which the aviculturist accepts.

To assert the inconstancy of a character is dangerous; because it may lead the sceptic into trouble. A bird of the year may be, and I believe usually is in the Thrushes, smaller than its parents. I examined all the broad-billed males of *Sialia sialis* in the British Museum series, and found them pretty uniform in

length, but noticeably shorter than the narrow-billed males: now if a young bird did not acquire its full adult colouring in any species, and was found to be constantly smaller and with a broader bill, it would not be surprising if it were regarded as a well defined distinct species.

So far as I have examined them, I should assume that in the *Corvidæ* the form of the bill is the reverse of that in the *Turdidæ*, the male bill being broader and shorter than in the female; whereas in *Gymnorhina*, the group of so-called Piping Crows, the male has the longer and more slender bill.

Aviculture and scientific ornithology should walk hand in hand, as twin studies; each is of importance to the other. The study of the soft parts cannot be pursued in the cabinet, only in life; and in many instances the colours of these parts have been incorrectly described; either owing to the neglect or carelessness of collectors, or to the attempt to reconstruct the living colouring from skins. Perhaps one of the most remarkable of these errors, frequently repeated, is that relating to the colour of the iris in the young and adult of our common Jay; a young bird which I received as a nestling some years since had pale blue eyes (just as the young of many other animals have) but these changed to vinous brown with the first moult, and are of that colour to the present time: that this is the correct colouring has been since confirmed by the observations of other aviculturists; and that this colouring should have been reversed in text-books, is sufficient to prove that the study of living birds is as much a branch of ornithological science, as the study of bird-skins.

THE HARMLESS NECESSARY DEALER.

By the Rev. C. D. FARRAR.

What the dealer wants to be is what they call in Africa "a devil man." He must betray no weakness, but possess a character which I should describe as a compound of Cardinal Richelieu, Brutus, Julius Cæsar, Prince Metternich, and Mezzofanti: the better to carry on "the bird dealer language" part of the business. He must stand no nonsense, and strictly adhere to the motto "No admittance here except on business." This may cause unpleasantness, but in the end the dealer will flourish and be regarded as "a devil man."

The shop I have in my mind is a typical one: the space all round the walls is lined with store cages, thus enabling the

eye of the master to rove round his treasures, like a hen sitting on her eggs. The floor is—but there, I will not shock your feelings by entering into particulars, but insect life is not absent.

Though I cite this particular shop as a typical one, it is, remember, a specimen of the highest class. The owner takes every care, that lies in his power, of the birds that form his stock-in-trade—giving them rations of suitable food and water: but this is not so with all firms. I have seen some shops away down East where the unfortunate birds are expected to live on anything—an expectation the birds by no means realize—for they usually die.

Although, as I have said, the bird shop at its *best* is a place, as Mr. Tracy Tupman would say, “more fitted for a wounded heart than for one still able to feast on social joys,” it is a luxurious institution compared to a home-coming ship. This has one hundred times the danger and a thousand times the discomfort of any bird shop I ever heard of. Any bird living through the horrors of the homeward passage deserves great credit for his courage and enterprise, and may safely be regarded as illustrating Darwin’s theory of the “survival of the fittest.”

Every bird dealer looks down on every other bird dealer, and every other bird dealer looks down upon him. David once said in his haste that all men are liars; most bird dealers say it at their leisure of each other. I do not think that if the whole of Mr. Pitman’s School of Shorthand were present, they could take down the whole of the crimes which one bird dealer will lay at another’s door. This description certainly hits off the character of an inhabitant of Sodom and Gomorrah: and one could really think that those two historic cities had not been, as the Biblical records tell us—destroyed—but merely removed to East London. I really think that some future Revision Committee should substitute the word ‘transported’ for ‘destroyed.’ From their own account of the state of trade, and the awful and unparalleled series of losses they have had, you would, if you were of a trustful disposition, regard the bird dealer with an admiring awe—as the man who has solved the problem of how to keep a shop and live on the losses. Nay, not only to live but do well.

A dealer I knew once told me he had bred almost every bird I named, “in his back shop.” It was all *perfectly easy*. “My dear Sir,” he said in his most impressive manner, “anyone can do it, if he tries.” Mr. Hutchinson, in his “Ten Years Wanderings among the Ethiopians,” tells that, at Fernando Po,

Indian corn, planted on a Monday evening, on the following Wednesday morning will be four inches above ground—within a period, as he carefully says, of thirty-six hours! I don't disbelieve him; but I like to get a great strong man and a Consul of His Britannic Majesty to say it for me. Well, that is how I felt about that dealer's stories. I am myself, as Hans Bretmann says, "still skebdigal."

I often stand and admire the marvellous skill which a dealer I know displays in catching Parrots. Now, in parrot-catching there are two players; and the one wins that gets hold first. I fancy that the golden rule in the game is invincible courage. As Captain Boler, of Bony, used to say, "Never be afraid of a Parrot if you can help it; but never show it anyhow." It is difficult, I grant you, but the only safe road.

To be a really successful bird buyer you must have no what our American cousins call "blooming modesty." When the dealer names a price, boldly make him a bid, but don't be shocked at what follows. Probably if you turned blue all over, with yellow spots, he would not assume a more astonished look. His feelings will fly ahead of his command of language—great as that is, and he will expectorate with profound feeling and expression; his expressive countenance will be a perfect battle ground of despair and grief at his being thus asked to lower trade prices, but in the end he will control his feelings sufficiently to meet your wishes, and the affair will be amicably settled.

Let me mention a little incident that once happened to myself. I had bought a certain bird of a certain dealer who shall be nameless. It arrived *dead*. I carefully cut a nick out of its tail and returned it; at the same time asking for a live one in place of it. Next day I received back what purported to be a new one; but, on examining it, lo! it was dead too, and *its tail was nicked*. I wrote to that dealer in a kind and fatherly manner, and the purport of my remarks resembled the words of Bret Harte on a not dissimilar occasion:

Which is why I remark—
And my language is plain—
That for ways that are dark
And for tricks that are vain
My bird dealer friend is peculiar;
Which the same I am free to maintain.

Let me give one other very funny scene from dealer life. Some time ago there lived three rivals in the avicultural world. We will call them A., B., and C., and all apparently had more money than sense. Dealers soon got to know their little ways,

and played them off one against the other. Whenever some rare stuff came in, wires went flying about to all the suburbs calling the three like eagles to their prey. Among the dealers was one very downy one. One day he received three rare Tanagers; off went three wires, all to the same effect: "A very rare Tanager has come *only one in market*. Come at once." On receipt of telegram, A., B., and C. repaired—fortunately, as the event proved—at different hours to that bird shop. Mr. Dealer had put two of the birds away, only one was on view. In rushed A.: "Has that bird gone? if you have sold it to B. or C. I will never buy off you again." "No, Sir; here it is." "How much?" Dealer names a stiff price. "All right, I'll take it." Hardly has A. departed when, like Esau of old, B. enters. Mr. Dealer has just got Tanager No. 2 out of concealment. Same scene repeated, and B. departs, happy in the thought that he has circumvented A. and C. Hardly have his footsteps died away when C. arrives breathless from the City. "I *must* have that bird; I don't care what price it is; but A. and B. sha'n't have it." "All right, Sir," says Mr. Dealer, "here it is;" producing Tanager No. 3. C. goes off happy and smiling. Next day A., B., and C. meet. They exalt over their enemies. "I have got the only Blue Tanager living," says A. "No, you hav'n't," says B., "I have." "Why," says C., "I have it; what do you mean?" Tableau! They repair to that bird shop, vowing threatenings and slaughter on their treacherous friend. But, as the dealer said to me, with a sly wink, "I was *out* when they called."

But joking apart: we all of us owe the dealer an immense debt of gratitude. By his means I have obtained birds which I could never otherwise have seen. I have turned up in his shop unexpected and unheralded, and, like Solomon did the Queen of Sheba, "he has shown me all his royal treasure," and, like that wise king, he has told me all that was in his heart; or, at any rate, as much as he thought it would be good for me to know. He has handed down cage after cage under conditions which must have given him very real trouble and inconvenience, and for the sake of an individual that, as an old Hebrew prophet once said, "could not profit him." He has often given me good advice, which, had I followed it, would have enabled me to keep out of much hot water. I sincerely hope often to visit him again in the future; for I have much to learn and he has much to teach: and I say of him what we say up here of our miners, "he arns all that he gets." May his losses be few and his profits large!

NOTES ON BREEDING BUDGERIGARS.

By EMILY BRAMPTON.

It has been suggested to me by a member of the Council that I should write an account of my success in breeding Budgerigars. Though they are common birds, and the majority of them will breed very easily under suitable circumstances, success is not universal, and my experiences may serve to encourage others, who have failed so far, to go on and prosper in spite of difficulties.

Budgerigars were the first foreign birds I ever possessed. At that time I was not a member of the Avicultural Society, but having read that "Budgerigars are as easily bred as Canaries," I was fired with the ambition to try my 'prentice hand. I had already been very successful with Canaries, and pictured myself buying a pair of Budgerigars and seeing nest after nest of young ones climbing and flying about my aviary. Alas! I did not dream of the four years of disappointment that stood between me and success, but "its dogged does it," and, when fortune smiled at last, I forgot all previous disappointments.

Consulting my authority, I found that she who would rear Budgerigars must procure "imported" birds to start with. Strangely enough, the dealer to whom I applied had several "imported" birds in his stock, and I returned home in triumph with two pairs. It was April, so I turned them out into an aviary by themselves, supplying them with everything the heart of bird could desire—and then waited impatiently for the young birds to appear.

The aviary was a disused summer house with small flight;—it was liberally supplied with perches, natural branches, and cocoanut husks, and the birds were fed on canary and millet, water and grass; with sand and mortar in profusion. I grudged those birds nothing, and yet they showed the basest ingratitude and would not even look at a nest. They did not seem very clever at flying either, and deep down in my heart was the doubt whether they were as large or as bright in colour as Budgerigars should be. Still the dealer had warranted them "imported," so they must be all right, and I preached patience to myself and said, "Next Spring they will begin!" Spring came and went, and I was still hoping; learning slowly and painfully through deaths caused by apoplexy, egg binding and mice, and still buying "imported" birds at many times their real value. And so the fourth season came round, and, though I had lost one of my hens,

one happy day I found a young bird crouching on the floor. Its mother certainly did not seem so proud of it as I should have expected, or as I was myself; and, after a week or two, I did wonder whether it was the usual thing for a young Budgerigar to be so long learning to fly, and whether it ought to scuttle away into corners and tumble about as it did! It was very tiny too, and rather short of feathers, but it was the first, and I was not disposed to be critical.

It was not followed by another, and it never learned to fly, but when it died I learned what "French moult" meant, and had advanced another step towards knowledge. Before the next Spring, I emptied and disinfected my aviary, and, having lost all faith in my authority, decided to experiment for myself, which I ought to have done long before.

Having learned that Budgerigars in their native land are gregarious, I acted on the hint, and in February turned out five pairs of *aviary bred* birds from a good breeding strain. By this time, although determined to keep Budgerigars until they did rear some young ones, I had ceased to expect success, and was surprised and puzzled about two months later to find a stranger in the aviary. It could not surely be a young one at last, for it was so big and plump, and such a splendid flier, but it certainly had black eyes, and no yellow cap! Next day, however, it was outside again with two companions, and in the course of a week or so, twelve grand young birds had made their appearance—and I was happy at last. After this the youngsters came so thick and fast that they overflowed into my other aviaries until all were over-crowded, and still they came!

When the first dozen young ones had moulted and assumed their adult plumage, I returned five pairs to the aviary and they also nested. These five original and five young pairs reared one hundred and four young birds between one February and the next. How they managed it I have never been able to understand; my success was too precious for me to imperil it by even a peep into the nests—I just kept quiet, supplying food, and removing youngsters, and left the birds to manage the rest themselves; and they certainly justified my confidence in them.

Having reared so many young birds, the difficulty was to dispose of them all; but after a good deal of trouble I succeeded in doing so, retaining only two pairs of the old ones, who promptly gave up nesting seriously and only played at it.

Therefore it seems almost necessary to keep a number of these birds together, otherwise they become too fat to do any good, and die either of apoplexy or egg-binding. They are very greedy birds and if liberally supplied are apt to eat more than is good for them, especially of millet seed. My experience teaches me to limit the amount of millet, giving it only three times a week when there are no young ones to be fed, and not to be too generous with canary; then, if the birds have sufficient room for flight, and plenty of grit, and grass pulled up by the roots, with fresh water, they will keep each other in good condition if there are several pairs in the aviary.

I think the young ones should always be removed as soon as they can well feed, as they interfere with subsequent nests, besides beginning on their own account at too early an age. Each pair of birds should have two husks or boxes hung up out of the reach of mice, with a very small entrance hole facing the light. The birds will enlarge it if it be too small, but I always found they disliked too large an entrance. My birds never had sop when feeding young ones, I gave them only white oats. This feeding seemed to suit them, for they grew into magnificent birds, as large and bright as any I have seen.

THE CRYSTAL PALACE BIRD SHOW.

The sixteenth annual exhibition of the London and Provincial Ornithological Society was held at the Crystal Palace, from November 5th to 7th last.

In the British and Foreign Sections there was little of exceptional interest or rarity, and the Show was by no means up to the average of Palace Shows. No tent was provided, the Show being held in the centre of the Palace, just in front of the Royal Box; and several of the delicate foreigners suffered severely from exposure to draughts, and on the second day more than one specimen looked as though it had but few hours to live.

Commencing with the British Section—there were several nice birds in the Migratory Class, the first and third prizes going to Mr. C. T. Maxwell's Blue-headed Wagtail and Blackcap respectively. The second prize winner was a lovely specimen of the Black Redstart, exhibited by Mrs. C. Cooper. A nice Cole-tit was shown, but in a most unsuitable cage, without any nest-box, which is so essential to these hole-loving birds.

The Mixed Class contained an interesting collection, the first prize going to a fine Chough, belonging to Mr. W. F.

Plumbridge, one of the best we remember to have seen in captivity. The second prize was awarded to a very good cock Mistle Thrush. Of the other members of this class, the most interesting were a Greater- and a Lesser-spotted Woodpecker, the latter of which looked as though it was not long for this world; a Golden-crested Wren, a difficult bird to keep successfully; and a Ring-Ouzel. Somebody sent a London Sparrow, for what reason we were unable to discover.

In the Foreign Section we passed the Parrot Class without noticing anything unusual or of special interest.

The Class for Budgerigars and Love-birds was cancelled.

The best bird in the Mixed Class for Parrakeets was undoubtedly Mr. Hawkins' female Golden-shoulder, but she was in a horribly draughty position and did not look over happy.

There was a Class for Waxbills, Mannikins, Combassous, Weavers, and Whydahs, the first prize in which was justly awarded to a very good pair of *Bathilda ruficauda*. A good pair of Pectoral Finches (*Munia pectoralis*) obtained the second, and a pair of Wiener's Waxbills the third prize.

The Mixed Class for Seedeaters was a large one, the first prize going to a very ordinary pair of Long-tailed Grassfinches, shown by Mrs. C. Cooper, and the second to a pair of so-called White-eared Grassfinches, belonging to Mr. Hawkins, but one was so dark that it struck us as being much more like a hybrid between the White-eared and Masked Finches. A good pair of Olive Finches were sent by Mr. Hawkins.

There were two interesting exhibits of Doves in this class, belonging to Mr. W. E. Parker, although neither was in specially good form. One was a specimen of the Violet Dove (*Geotrigon violacea*) and the other the White-winged Dove (*Melopelia leucoptera*) both from the West Indies.

The Class for Insectivorous Birds contained some interesting birds. Mr. Glasscoe sent two beautiful Wood-Swallows, the Masked (*Artamus personatus*) and the White-eyebrowed (*A. superciliosus*), and a Sacred Kingfisher (*Halcyon sancta*). Mr. Housden sent a fine pair of South American Rails, and Mr. Gilroy a large Hill Mynah.

Quite a new feature in the Show was a Class for Stuffed Specimens, and there were no less than thirty entries. The only exhibits, however, that especially commended themselves to us as being naturally and beautifully set up, were those of Mr. C. Thorpe, of Croydon, whose groups of Puffins and Little Auks were really charming.

D. S.-S.

RECENT PUBLICATIONS.

THE BIRDS OF SOUTH AFRICA.*

The second volume of Dr. Stark's valuable contribution to the Ornithology of South Africa is at last to hand. We have had to wait some time for it but it is well worth waiting for, and quite comes up to the high standard of his first volume. The Editor in his Preface reminds us of the tragic and melancholy end of the author in Ladysmith, when the first volume only was in the printers' hands and the manuscript for the second volume was by no means complete. Dr. Stark's materials were, however, placed in the hands of Mr. W. L. Sclater who has completed the volume, which deals with the second half of the Passerine Birds, and includes the Bush-shrikes, Babblers, Bulbuls, Warblers, Rock-jumpers, Thrushes, Chats, Robins, Flycatchers, Drongos, Cuckoo-shrikes, Swallows, and Pittas.

This work is well illustrated, all the illustrations (with one exception) being by Mr. H. Grönvold. The only direct reproduction from a photograph is most successful and represents a Cape Rock Thrush with nest and eggs in its natural surroundings; amongst the eggs being one laid by the Solitary Cuckoo.

This is a work that should find its way to the libraries of all who are interested in South African Ornithology.

THE CAGE BIRDS OF CALCUTTA.

A very interesting paper, and one of considerable importance to aviculturists, entitled "The Cage Birds of Calcutta," by our valued member, Mr. Frank Finn, appeared in the *Ibis* for July last, and has recently been reprinted and a copy kindly sent us by the Author.

The taste for cage birds in India seems to date back from a very remote period, but we are sorry to find that "the fancy" is no longer what it was, although Calcutta still rejoices in a very well-known bird market.

The breeding of birds in aviaries appears to be little understood in India, most species being kept either singly in small cages, or several examples being housed together in larger cages.

Insectivorous birds are the favourite cage birds in India, and these are fed for the most part on "the flour of gram, a

* "The Fauna of South Africa"—"Birds"; Vol. II., by ARTHUR C. STARK, M.B. Completed by W. L. SCLATER, M.A., F.Z.S. London: R. H. PORTER.

kind of pulse, made up into a paste with ghee (clarified butter). This 'saltoo' seems to suit them very well; it is supplemented, in the case of purely insectivorous species, by a daily ration of live maggots and grasshoppers."

The method of obtaining these is certainly most convenient, and many of us would doubtless be glad if similar facilities existed in England. We are told that the breeding of the maggots and the collection of the grasshoppers forms "the trade of a number of professional bird-feeders, who, on receipt of a small monthly sum, will call daily at the houses of their patrons and supply insectivorous birds with everything needful."

Although, naturally, the great number of the species seen in the Calcutta Markets belong to the Indian region, birds from almost all parts of the globe seem to find their way thither. Even the lovely Birds of Paradise are occasionally to be seen in Calcutta, although the males only are imported and appear to thrive well in captivity.

Mr. Finn mentions nearly every species likely to be met with in Calcutta. Some are well known to us at home, others are very rarely seen here, and many are quite unknown in this country.

We would strongly advise any of our members who are likely to visit Calcutta to carefully peruse this most useful paper.

The *Ibis* for October contains papers on: "The Birds of the Southern Shan States"; "An Introduction to the Study of the *Drepanididae*, a Family of Birds peculiar to the Hawaiian Islands"; "Two recently discovered Additions to the Genus *Calliste*"; "A few additions to the Birds of Lucknow"; "On Birds collected during an Expedition through Somaliland and Southern Abyssinia"; "Results of an Ornithological Journey through Columbia and Ecuador"; and a "Description of three new Species of Birds of Peru."

There are no less than five coloured plates by Messrs. Grönvold and Keulemans.

BIRD NOTES.

At a meeting of the Society for the Protection of Birds held on October 25th last, at No. 26, Hanover Square, Mr. Oxley Grabham, M.B.O.U., exhibited a number of lantern-slides from his own photographs, illustrative of Yorkshire bird life, accompanying them with explanatory remarks. All the pictures were good, and some of an exceptionally high order of merit. The nest of a Tree-creeper was shown. After the bird had laid her eggs, a

Redstart drove her away, took possession of the nest, and laid her clutch. Both, however, were lost, for neither bird would allow the other to incubate. Most of the birds of the moors, and their nests, were exhibited, and there was a good series illustrating the cliffs and climbers at Flamborough. The Robin was, of course, included, for it is a universal favourite. Mr. Grabham, however, spoke very plainly as to the pugnacious character of this species; as he did also of the misdeeds of the Sparrow, of which so good an ornithologist as the late Lord Lilford had spoken as *Passer damnabilis*. From a scientific point of view, the most noteworthy views were a series showing the nesting habits of the Kingfisher—which Mr. Grabham said was common on all Yorkshire streams—and the young in various stages. But, as pictures, the palm must probably be given to the sitting Black-headed Gulls on a small, reedy island in a placid lake—probably involving no great difficulty, but very effective and picturesque.—*Standard*, October 26th, 1901.

Writing to the *Feathered World* of October 11th last, Mr. D. G. Ricard observes :—"The two most beautiful birds in South Africa are the Blue Jay and the Emerald Cuckoo; which of the birds carries off the palm would be hard to say, as opinion is divided on the subject. The Cuckoo, which is about the size of the English bird, is one mass of green and gold, the wings and head being of the latter colour, whilst the breast is a vivid green. The Blue Jay is blue as to the wings and head, but with a golden breast. As these birds fly by in the brilliant sunlight they make a picture such as an artist would like to dwell on. These birds are only found in certain parts of the country, namely, where bush is more or less abundant. They are said to be dying out, the rage for 'curios' of all kinds no doubt being responsible for this."

Mr. Hedley Speed kindly forwards us the following cuttings from the *Liverpool Daily Post*, October 21st, 1901 :—"Bird Song.—Mr. W. E. D. Scott, Curator of Ornithology, in Princeton University, United States, reared two young Baltimore Orioles away from the old birds and found that they began to sing of themselves when they grew older, but the song was their own, that is to say, different from the ordinary song of the Oriole. Other young Orioles reared beside these birds copied their new song. Hence it would appear that while birds inherit the tendency to sing they learn the particular song."

Extract from same paper, October 26th, 1901 :—"From the statement in the *Liverpool Post* of the 21st that a distinguished American ornithologist has discovered "that, while birds inherit the tendency to sing, they learn the particular song" from their parents, it is evident (writes a naturalist correspondent) that we have still much to learn on this subject. How comes it that young partridges have been heard to sound their familiar call-note before they were hatched—five or six hours before they were out of the egg? Can they hear before they are hatched, and through the shell? But I can mention a more puzzling case. Some years ago an Edinburgh bird dealer obtained a fledgling Cuckoo from a Hedge-sparrow's nest and managed to rear it. Now, in this case, the parents of that bird had left the country before it was caught, and if it heard any "song" at all in its infancy it was that of its foster parents. But what was the result? The young Cuckoo lived through the winter, and in the spring gave out

the familiar song-note, "Cuckoo, cuckoo!" It may be added that the bird dealer had no other Cuckoo in his shop.

A specimen of the Great Auk's egg, the last of four belonging to the late Baron d'Hamonville, was offered for sale at Stevens' Auction Rooms on October 29th last. The bidding commenced at 100 guineas, and the egg was eventually knocked down for 240 guineas. Of the other three, two were sold for 300 guineas each, and one for 170 guineas; so that the four eggs have realised £1,060 10s.

CORRESPONDENCE.

THE PASSENGER PIGEON.

SIR.—I enclose a cutting from the "Globe" of 23rd October last regarding the strange and sudden disappearance of the Passenger Pigeon (*Ectopistes migratorius*) which but a few years ago, I believe, was found in countless thousands in the United States. The article has a melancholy interest for naturalists, for it would seem to shew that this fine species must be added to the list of those that have been.

Can you tell us in the "Avicultural Magazine" whether this is indeed the case or whether there is any hope that the bird still exists and perhaps stands a chance of becoming plentiful again, for it seems so difficult to find a reason for its complete disappearance in so short a time.

H. C. MARTIN.

[We are much obliged for the cutting, which we regret being unable, on account of limited space, to print here. Whether the Passenger Pigeon is actually extinct or not we are unable to say, but we strongly doubt the fact. There is, however, no question as to the rapid decrease that has taken place in recent years in the numbers of this species.

The last nesting of any importance seems to have been in the year 1881, and, according to *Lydekker's Natural History*, "in 1886, Mr. Stevens found about fifty dozen pairs nesting in a swamp near Lake City." As late as 1895, the year in which the above work was published, this Pigeon was "by no means on the verge of extinction," but its extermination was regarded as "only a matter of time."

The best account of this remarkable species, that we have been able to lay hands on, is that by Wilson, quoted in Selby's volume of the old "Jardine's Naturalists Library," and the subject is of such interest that we may perhaps be pardoned for quoting at some length. Writing of one of the remarkable breeding places of this bird, he remarks;—"Not far from Shelbyville, in the State of Kentucky, . . . there was one of these breeding places, which stretched through the woods in nearly a North and South direction, was several miles in breadth, and was said to be upwards of forty miles in extent! In this tract almost every tree was furnished with nests wherever the branches could accommodate them. The Pigeons made their first appearance there about the 10th of April, and left it altogether with their young before the 25th of May. As soon as the young were fully grown, and before they left the nests, numerous parties of the inhabitants, from all parts of the adjacent country, came with waggons, asses, beds,

cooking utensils, many of them accompanied by the greater part of their families, and encamped for several days at this immense nursery. . . . The ground was strewn with broken limbs of trees, eggs, and young squab pigeons, which had been precipitated from above, and on which herds of hogs were fattening. Hawks, Buzzards and Eagles were sailing about in great numbers, and seizing the squabs from the nests at pleasure; while from twenty feet upwards to the top of the trees, the view through the woods presented a perpetual tumult of crowding and fluttering multitudes of pigeons, their wings roaring like thunder. . . . On some single trees, upwards of an hundred nests were found, each containing one squab only." Audubon, however, states that *two* eggs are laid, each brood usually consisting of male and female.

Writing of one of the vast flocks of these Pigeons Wilson proceeds, "From right to left as far as the eye could reach, the breadth of this vast procession extended, seeming everywhere equally crowded. Curious to determine how long this appearance would continue, I took out my watch to note the time, and sat down to observe them. It was then half past one; I sat for more than an hour but instead of a diminution of this prodigious procession, it seemed rather to increase, both in numbers and rapidity; and anxious to reach Frankfort before night, I rose and went on. About four o'clock in the afternoon I crossed the Kentucky river at the town of Frankfort, at which time the living torrent above my head seemed as numerous and as extensive as ever." Wilson estimated this flock to consist of something over two hundred and thirty millions, which, he says is "probably far below the actual amount."

The species is found, according to the British Museum Catalogue, in "North America, from Hudson's Bay southwards and westwards to the Great Plains, straggling westward to Nevada and the Washington Territory. Accidental in Cuba."

That its numbers should have so rapidly decreased, that, at the present time, it is a scarce species, if not almost an extinct one, is a problem that we admit to being quite unable to solve.—EDITOR.]

BREEDING BLOODWINGS AND REDRUMPS.

SIR,—I have bred three fine young Bloodwing Parrakeets—also two Redrump Parrakeets, this summer in my garden aviary. They are fine healthy birds, but, so far, do not show by their colouring if any of them are cocks.

I have also bred Zebra-finches, Cutthroats, and two Red-billed Weavers in another aviary.

SARAH E. MORSHEAD.

VIRGINIAN NIGHTINGALES.

SIR,—In reply to the Hon. Mrs. Hawke's letter in the October number *re* the above, I have pleasure in relating my experience with Virginian Nightingales. I have had altogether three nests of these truly interesting birds. Twice the bird built her nest among some dead branches in the outside portion of the aviary, and on the last occasion in a Hartz Mountain cage inside the hut.

I may state that the hen bird did practically all the building operations, the cock appearing to take no interest at all. In the first case

she laid four eggs, only laying an egg every other day; and, in about thirteen days after the last egg was laid, I noticed there were young birds in the nest. They were covered with white down. These birds lived only for about two days and then disappeared, and I could find no trace of them.

The hen built another nest almost immediately, and again laid four eggs; this time on consecutive days. As I had a suspicion that the cock knew something about the fate of the last lot of young ones, I caged him up; but it made no difference, as the young birds only lived as long as the first brood had done.

The third time she laid only three eggs. This time I did not trouble her at all until the young had been hatched a little while. They grew splendidly until they were nine days old, when one night the largest one fell from the nest to the ground and was killed. This seemed to dishearten the old hen, as she deserted the remaining two immediately.

My birds were fed on ants' eggs, mealworms, hard-boiled eggs, green peas, raw meat chopped very fine, and plenty of green food, etc.

I see that the Rev. C. D. Farrar, in his article on these birds in Vol. V., draws attention to Mr. Gedney's remark in his book, wherein he states that his bird laid four eggs at intervals during eight days. In my aviary, with the first nest, my experience coincides with Mr. Gedney's, while in the second and third nests with that of the Rev. C. D. Farrar.

R. FRANKLIN-HINDLE.

FOREIGN BIRDS AT BALLYWALTER PARK, CO. DOWN.

SIR,—It may interest you to know that my aviary has done very well this year. I have lost very few birds, and those I have are all looking well. They have been out since last Christmas, and have nearly all finished moulting out of doors.

I reared a nest of Cordon-bleus; they built in a little travelling cage box outside and brought out three young ones. When I left for Scotland on August 12th, they were well and flying about, but when I returned in September, only the old birds remained.

I have thirty-three young Zebra-finches, two young Cutthroats, two young Spice- or Nutmeg-finches. Is it not rather rare to rear the latter? I obtained the parents in 1896, and this is the first year they have nested. When I came home on September 26th the young ones still had fluff on their heads though flying about out-side. Parson-finches and Saffron-finches both laid but did not hatch.

The Scarlet and Superb Tanagers I bought at the Auxiliary Stores last November were put out in May, and are now very nearly through their moult.

My losses since last January have been: four Waxbills, five Black-headed Nuns—some very old; two Parson-finches, some Canaries, and two Combassous.

I am enlarging my aviary, and hope to have the Popes and Virginian Cardinals separate next year.

The following is a list of the birds I have at present:—

No. 1 Aviary: Twenty-two Canaries, six Cut-throats, two Pintail Whydahs, thirty-two Zebra-finches, seven Waxbills, four Red Avadavats, three Green Avadavats, four White-bellied Nuns, eleven White-headed Nuns,

three Golden-breasts, two Bengalese, four Spice- or Nutmeg-finches, five Parson-finches, two Saffron-finches, one Russian Cock Bullfinch, one Blue-winged Love-bird, two Cockatiels, three Java Doves, one Scarlet Tanager, one Superb Tanager, one pair Nicobar Pigeons, one Pontenegra from Madeira, two cock Californian Quails, three Cordon-bleus, one Mountain Finch, one Mannikin. These have been together all the year.

Aviary No. 2 : Three Pekin Robins, two Indigo birds, four Weavers, one Green-singing Finch, two Nonpareils, two Teal, one pair Virginian Cardinals, one pair Popes, one Rosella, one Half-moon Parrakeet, one Redrump, one Indian Parrakeet, two Zebra Doves.

The Virginians built a nest and laid, but the other birds took their eggs. N. L. F. DUNLEATH.

[We can find no previous record of the Spice-finch (*Munia punctulata*) having nested successfully in the United Kingdom, although one young one was reared by Dr. Russ in Germany, and we believe therefore that Lady Dunleath is the first to breed this species in the British Isles. ED.]

ORANGE-CHEEKED WAXBILLS BREEDING IN CAPTIVITY.

SIR,—I know as a rule you do not care for seeing dead birds, but I thought the enclosed young Orange-cheeked Waxbill might interest you. The brood was hatched (in a cage) about September 17th. There are three more young birds; one is not very strong, but I think will live, the other two are very fine birds. The little one I send had been ill two or three days. Can you tell me what it died of? It seemed getting better, but died rather suddenly this morning. Can you tell me if the Orange-cheeks have been bred in England before? ROSIE ALDERSON.

The following reply was sent to Miss Alderson :

You have been unusually fortunate with your Waxbills; and to successfully breed the Orange-cheeked Waxbill was considered no easy task even by the late Dr. Russ.

This species has on several occasions been bred in Germany, but I do not remember any instance of its being bred in Great Britain.

I was interested to see the bird, and hoped the skin might have been preserved; but these baby Waxbills decompose so rapidly that, at the first attempt to skin it, the whole of the feathers came off the underparts. The abdomen was full of blood and water, so that death was probably due to some internal rupture, but I fear I am not doctor enough to tell you more.

A. G. BUTLER.

THE SOCIETY'S MEDAL.

THE REVISED RULES.

The Medal may be awarded, at the discretion of the Committee, to any member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any member wishing to obtain the Medal must send a detailed account to the Secretary, for publication in the Magazine, within about eight weeks from the date of the hatching of the young, and furnish such evidence of the facts as the Executive Committee may require.

The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents.

The account of the breeding must be reasonably full, so as to afford instruction to our members, and should describe the plumage of the young, and *be of value as a permanent record of the nesting and general habits of the species*. These points will have great weight when the question of awarding the Medal is under consideration. The decision of the Committee shall be final.

The Medal will be forwarded to each member as soon after it shall have been awarded as circumstances will permit.

The Medal is struck in bronze, and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—Founded 1894." On the reverse is the following inscription: "Awarded to (*name of donee*) for rearing young of (*name of species*) a species not previously bred in captivity in the United Kingdom.

Members to whom Medals have been awarded.

- Vol. III., p. 210. Mr. R. A. TODD, for breeding the Long-tailed Grassfinch, *Poephila acuticauda*, in 1897.
- „ IV., pp. 45 & 77. Mr. GEORGE E. BOUSKILL, for breeding the Golden-crowned Parrakeet, *Cyanorhynchus auriceps*, in 1897.
- „ „ p. 212. The Rev. C. D. FARRAR, for breeding the African Firefinch, *Lagonosticta minima*, in 1898.
- „ V., p. 1. Mr. E. G. B. MEADE-WALDO, for breeding the Chinese Quail, *Excalfactoria chinensis*, in 1898.
- „ „ p. 165. The Rev. C. D. FARRAR, for breeding the Nonpareil, *Cyanospiza ciris*, in 1899.
- „ „ p. 169. Mr. R. PHILLIPPS, for breeding the Black Lark, *Melancorypha yeltoniensis*, in 1899.
- „ VI., p. 217. The Rev. C. D. FARRAR, for breeding Barraband's Parrakeet, *Polytelis barrabandi*, in 1900.
- „ „ p. 270. The Rev. C. D. FARRAR, for breeding the Indigo-bird, *Cyanospiza cyanea*, in 1900.
- „ VII., p. 29. Mr. L. W. HAWKINS, for breeding the Cuba or Melodious Finch, *Phonipara canora*, in 1900.
- „ „ p. 32. Mr. L. W. HAWKINS, for breeding the Masked Grassfinch, *Poephila personata*, in 1900.
- „ „ p. 45. Miss R. ALDERSON, for breeding the Lavender Finch, *Lagonosticta cerulescens*, in 1900.
- „ „ pp. 165 & 215. Mr. D. SETH-SMITH, for breeding the Cape Sparrow, *Passer arcuatus*, in 1901.
- „ „ p. 191. Mrs. JOHNSTONE, for breeding Leadbeater's Cockatoo, *Cacatua leadbeateri*, in 1901.
- „ „ p. 192. The Rev. C. D. FARRAR, for breeding the Andaman Starling, *Poliopsar andamanensis*, in 1901.
- „ „ p. 197. The Rev. C. D. FARRAR, for breeding the Black-headed or Pagoda Mynah, *Temenuchus pagodarum*, in 1901.
- „ „ p. 217. Mr. W. H. ST. QUINTIN, for breeding the European Roller, *Coracias garrulus*, in 1901.
- „ „ p. 219. Mr. A. E. NICHOLSON, for breeding the Rufous-tailed Grassfinch, *Bathilda ruficauda*, in 1901.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post in addition to any Report that may appear in the Magazine be required, a stamped and addressed envelope must likewise be forwarded to Mr. Gill.

QUEEN PARROT. (The Rev. H. D. Astley). Both this bird and her mate have died within a few days of each other, after having bred this year, and having been in an outdoor aviary for four years in perfect health.

[Your Parrot was much emaciated. There was extensive tubercular deposit in both lungs and liver. The contents of intestines were much too fluid to be normal, and doubtless your bird has suffered from diarrhoea, for some days.

Cause of death was syncope (heart failure). No doubt nesting and moulting have been such a strain upon the system of this bird, owing to the tubercular disease (which is of some duration) having reduced its strength considerably, that when diarrhoea set in exhaustion became so extreme that the heart failed to act].

BICHENO'S FINCH. (Mr. Glasscoe). Symptoms:—Stretching of the neck when breathing, with more pronounced gasping as death approached. Suggested:—Some formation in the neck.

[Death was due to congestion of the lungs, both of which were involved. This condition was brought about by chill. The stretching of the neck simultaneously with each inspiration was merely indicative of an especial effort on the part of the sufferer to inflate the partially consolidated lungs. There was no disease whatever in the throat].

PARROT-FINCH. (The Rev. H. D. Astley).

[Death was due to pressure on the brain from extravasated blood; brought about, no doubt, by an injury, in all probability by coming in contact with some object when flying].

ORANGE-CHEEKED WAXBILL. (Miss Alderson). Found dead in aviary, only a few minutes after being seen, apparently quite well.

[Your Orange-cheek died from compression of the brain, owing to a depression in the skull caused by some injury. Your suggestion of a peck by another bird is very feasible. The crop was full of seed and the bird well-nourished].

KING PARROT. (Mr. H. B. Smith).

[Cause of death: Sub-acute enteritis, of some long standing, probably due to injudicious feeding, or want of cleanliness during importation. You furnish no symptoms of this bird, but only of the Queen Parrot which survived. In future kindly notice Rules, as in some cases the symptoms, when given, will save a great deal of time and trouble].

SCARLET TANAGER. (Mr. Watson). Showed signs of illness 24 hours after purchase. It was then in a hanging cage out of doors, and after eating voraciously of banana and the usual insectivorous mixture, was found apparently dead. On being thoroughly warmed, and given a small dose of rum, it revived and again fed greedily at 10 p.m. in a warm room. In the morning it was dead.

[Your Tanager died of acute inflammation of the lungs, as one might have expected if so injudiciously placed out of doors in such weather].

GREY CARDINAL and BLACK-HEADED GOULDIAN. (Mrs. Johnstone). Both found dead, after being in apparently good health a short time before.

[The Cardinal died of a fractured skull, and the Gouldian of acute inflammation of the bowels.]

ARTHUR GILL.



SPOTTED EAGLE-OWL (*Bubo mauculosus*)



SPOTTED EAGLE-OWL (*Bubo maculosus*).
Five weeks old.

THE

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ON THE BREEDING OF THE SPOTTED EAGLE OWL.

(Bubo maculosus).

By J. LEWIS BONHOTE.

I have long had an affection for Owls as aviary inmates, and consequently when, for the fourth month, I saw a pair of Spotted Eagle Owls still confined in the same small cage at a well-known London dealers, apparently healthy but blackened by a winter's fog, I took compassion on them and purchased them at a price considerably below their value when first landed from South Africa.

The Spotted Eagle Owl (*Bubo maculosus*) is, for an Eagle Owl, a small bird, being but slightly larger than the Brown Owl of our own country. In colour it is dark sepia brown, mottled and barred with white, and, like all Eagle Owls, has two conspicuous tufts of feathers, erroneously called ears, situated on either side at the top of the head. The only other point to be noticed about the plumage of this species is the patch of white below the chin, which, though more conspicuous in the male, is found in both sexes; but is hardly visible except when the throat is distended as they hoot, and may possibly serve as a distinguishing mark enabling the vocalist to be localized.

During the first few months, namely the summer of 1900, after their arrival in my aviaries, they devoted themselves chiefly to removing the stains of travel, and both moulted out into a bright and clean plumage; although unfortunately the female has an injured wing, which prevents her from flying, an injury for which I have since been rather grateful.

The aviaries being crowded at the time of their arrival, it was not until last December that I was able to move them to a sufficiently commodious apartment; but, being of a rather sluggish nature, they did not seem to avail themselves of their

extra liberty as much as one would have expected, passing most of their time close together on the same perch.

About the middle of April I noticed a 'scrape' in a corner of the aviary. This 'scrape' was placed in a small recess open only above and at the end, and formed by two sides of the aviary and a box placed to make a low nesting place.

Meanwhile, except that they hooted a good deal more, there was but little change in the behaviour of the birds, who were still to be seen side by side on the perch.

Nothing further occurred till, on the 2nd of May, the hen was discovered sitting on an egg; except for the slight depression or 'scrape,' there had been no attempt at the formation of a nest, and the egg was deposited on the bare ground.

In two days a second egg was laid; and incubation was steadily proceeding when, one day, about a week later, both eggs disappeared.

The cause of the disappearance is still a mystery; they were obviously stolen, and not eaten or destroyed by the birds themselves; but I was unable to satisfy myself as to whether the thief was a rat or human. If the former, they must have taken advantage of the female being off the nest, for she would furiously resent any interference when sitting; and even had she been feeding, I doubt the rats' power to remove the two eggs, entire and unbroken, over a clear space of some twelve feet to the nearest hole, without being attacked; be this as it may, however, the fact remains that, on the 14th May, the eggs had gone, and the female was standing disconsolately a few feet from the nest.

By the next day matters were as usual, and both birds seemed to have given up all thoughts of nesting; I was, therefore, considerably surprised, when passing through the aviary on 30th May, to see the female once more on the nest; and the following morning I found her sitting on one egg.

Two more eggs followed on this occasion, being laid with a day's interval between each. They are like all Owls' eggs, pure white in colour and of an uniform oval in shape, and somewhat larger than those of our Tawny Owl.

The incubation was entirely carried on by the hen, who, in fact, never seemed to leave her eggs, although I fancy she probably did so in the still hours of night.

This time further precautions were taken; and nothing happened to prevent the successful hatching of two young birds on the 5th July, after an incubation period of 35 days, or the same as that of our European Eagle Owl. The third egg was added; and the second youngster lived only a few hours.

When first hatched the young were covered with light greyish down, and were assiduously cared for by the parents, who both became rather savage. The male did not actually attack an intruder, though, after much snapping of the bill and many feints, he would occasionally make for one's face; but, on seeing an upraised arm, he would alter his course and settle down again.

Not so however the female, who luckily could not fly, for, like a flash of lightning, she would leave her young and attack one's boots and feet, with much energy but little result. Later on, finding that their attacks produced no result, they confined their somewhat rough attentions to snapping the bill; but on the least sign of intrusion the female would at once return to the nest if she were away, and, needless to say, vigorously protest against any interference with her child.

My Owls are always fed on lean raw beef, augmented with rabbit, rats, or birds, as opportunity offers, generally about once a week, and with a fast on Sunday; during the rearing of the young no especial change was made, except that 'fur' was given if possible three times a week, and there was no period of fast.

A few weeks after the young were hatched the male, suddenly and for no ostensible reason, died. I was never able to satisfactorily establish the cause of death; but, as all his organs were very much choked up with fat, it is probable that he had dined 'not wisely but too well' on the extra rations provided.

And now, as to the baby, who is the *raison d'être* of this article. During the first few weeks of its life it grew apace, and at three weeks old the wings were just beginning to grow, although it was not till some time afterwards that the body feathers came. The tufts of down, forerunners of the so-called ears, were noticeable about the fourth week; and the bird was fully fledged at nine weeks old. Long before this period, however, the young Owl was quite capable of living without parental aid, provided food was brought to it: and probably in a state of nature the young are dependent on their parents for a much longer period, until they gradually become sufficiently adept at catching enough food to render them independent.

The baby is now quite grown up, and indistinguishable from his mother. He does not take kindly to mankind, and on their approach lowers his head, fluffs out his feathers, and snaps his bill—an attitude in which he is depicted in the second of the photographs, though luckily for the readers of this article his language has had to be omitted.

The bird was about five weeks old when the first photograph was taken.

SOUTH AFRICAN CAGE-BIRDS.

By ARTHUR G. BUTLER, Ph.D.

Several of our members, who wish, I suppose, to utilize our South African trouble as a means towards a better acquaintance with the avifauna of that country, have, from time to time, written to various members of the Council asking for an account of the cage-birds either of S. Africa or some portion of that country. After conference with our present Secretary I have decided to make an attempt to supply this desideratum. (*a*).

In giving notes on these cage-birds it is not my purpose to include Eagles, Ostriches, or any birds which cannot be kept in a cage. One cannot well ask a friend to bring home a menagerie of bulky birds when he returns from the seat of war, or even from more peaceful pursuits in the colony: indeed to ask so much would probably induce a disinclination to bring anything. My own invariable experience has been that promises were always plentiful, but results *nil*: yet I never asked for anything either hard to obtain or difficult to import.

Commencing with the true Thrushes, which appear to have hitherto escaped importation from the colony, the species most likely to be secured are the 'S. African Thrush' (*Turdus litsitsirupa*), which is common in Damara and Great Namaqualand, but appears also to be widely scattered over eastern S. Africa; the 'Natal Thrush' (*Turdus guttatus*) which seems to be confined to Natal; and the Olivaceous Thrush (*Turdus olivaceus*), said to be one of the commonest of the Cape species, but having a wide range.

The Babbling-Thrushes (including the Bulbuls) seem to offer many more suitable subjects for importation; yet African Bulbuls rarely find their way into European bird-markets. Some

(*a*). The nomenclature followed is that of Sharpe and Layard's 'Birds of S. Africa,' whence I have derived my facts.—A. G. B.

of the commoner forms perhaps are not attractive as cage-birds—either for plumage or song,—but others sing sweetly and are by no means unpleasing in plumage. Of these birds the easiest to secure would be the ‘Yellow-bellied Bulbul’ (*Criniger flaviventris*) which is a common bird about Durban; the ‘Cape Bristle-necked Thrush’ (*Phyllastrephus capensis*) said to be plentiful near Swellendam, not uncommon to the east of Grahamstown, and the commonest bush-bird about Durban; the Sombre Bulbul (*Andropadus importunus*) which is not rare near Cape Town and is known as the ‘Boschvogel’; the Red-eyebrowed Bulbul (*Pycnonotus capensis*) known as the ‘Kuif-Kop,’ which is common throughout the colony; the Black-eyebrowed Bulbul (*Pycnonotus tricolor*), a good songster, which is common at East London and occurs at Nel’s Poort and many other places: it is captured with ease when intoxicated through feeding on the overripe and fermenting fruit of the Cape gooseberry.

In the Transvaal the Pied Babbling-Thrush (*Crateropus bicolor*) is common throughout the North; Jardine’s Babbling-Thrush (*C. jardinii*) also occurs here and on the Tugela river, and is common in the Bechuana and Matabele countries; Kirk’s Babbling-Thrush (*C. kirkii*) is common near rivers in the Zambesi; the Dark-faced Babbling-Thrush (*C. melanops*) may daily be met with in Damara Land, is gregarious in its habits, and very confiding.

Of the far more beautiful Rock-Babblers, the Rufous-breasted Rock-Babbler is said to be widely distributed, frequenting high elevations on stony sides of hills, where it may be seen in small families of three or four individuals.

The Short-footed Rock-Thrush is tolerably common in Damara- and Great Namaqua-Lands, feeding on insects and soft seeds: it is a prettily coloured and rather small bird, $6\frac{1}{2}$ inches in length; the Cape Chat-Thrush (or Cape Robin) may be abundantly met with in all the gardens in Cape Colony, as well as in the pine woods; it is very confiding and a pleasing songster; this therefore is a bird which undoubtedly might be freely imported.

Among the Chat-like birds the Southern Ant-eating Wheatear is common at Port Elizabeth, but only in the neighbourhood of ant-hills; it would perhaps not be easy to import, or feed in captivity; perhaps the most suitable of the Wheatears for aviculture would be the Familiar Chat (*Saxicola galtoni*), which is widely distributed and to be met with at every farm-house in the colony; its local name is ‘Speckvreter’; the

Capped Wheatear (*Saxicola pileata*), known to the Boers as the 'Schaapwachter,' which has a lovely song, is a clever mimic, and consequently a general favourite; it is found throughout the colony.

I do not think it would be worth while to speak of the Warblers of S. Africa, as these birds are never easy to keep; and would, I feel sure, be far less so to import, excepting perhaps in a private steam-yacht; the Sun-birds also may I think be profitably omitted from the present paper, with the exception perhaps of the Tit-like little Cape White-eye (*Zosterops capensis*) which is common throughout the colony, and ought to be no more difficult to bring over than the Chinese species: the Tits and Flycatchers may also be passed over.

Of the Shrikes, the handsome pied species known as the South African Long-tailed Shrike (*Urolestes melanoleucus*) might, I think, be obtained; as it has a tolerably wide range, and is generably distributed, though somewhat local, throughout the bush-veldt (according to Mr. Thomas Ayres): but undoubtedly every possible effort should be made to secure the gorgeously coloured Natal Bush-Shrike (*Laniarius quadricolor*), which is not uncommon in the dense bush along the coast: in colouring it surpasses, to my mind, the charming Fruit-suckers of India. Less beautiful, but still a handsome bird, is the Ruddy-breasted Bush-Shrike (*Laniarius rubiginosus*), a most delightful songster, which appears to be common at the Knysna; the Bacbakiri Bush Shrike (*L. gutturalis*), which is common at Cape Town and Port Elizabeth, would also be a desirable acquisition.

The Pied Wood-Shrike (*Bradyornis silens*) is said to be a sweet singer and clever mimic; it is common about Rustenberg and occurs less plentifully over the whole of the Cape Colony. The African Drongo (*Buchanga assimilis*) is plentiful throughout the coast district of Natal; it is especially fond of bees, of which it eats great quantities. The South African Black-headed Oriole (*Oriolus larvatus*), which is common along the south-east coast of the colony, might perhaps be imported without much difficulty.

The Crows of South Africa appear to be neither numerous in species, nor especially attractive.

Of the Starlings the abundant and widely distributed Wattled Starling (*Dilophus carunculatus*) should make a most interesting cage-bird. As regards the Glossy Starlings, we are all familiar with several in captivity. The Red-shouldered Glossy Starling is abundant throughout the eastern parts of the

colony, and is very gregarious; the Common Spreo (*Spreo bicolor*) is found everywhere, and congregates in small flocks; frequenting grazing grounds to feed upon the insects attracted to the dung of the cattle; and the Red-winged Spreo, or Cape Glossy Starling (*Amydrus morio*), is equally widely distributed; it feeds chiefly on fruit, but is said to be also fond of small mollusca and crustaceans.

The preceding are all insectivorous or soft-food eaters; and I find that they have occupied so much space that I shall have to reserve the account of other groups for subsequent papers. A mere list of the birds would I think be of little practical use; and certainly would not be especially interesting to many of our members. I may mention here that negro boys are the most reliable bird-catchers in S. Africa; and a 'tickie' (3d.) is their price for each bird caught: I do not know whether I have correctly spelt the word.

BREEDING OF THE BLACK-HEADED OR NANDAY CONURE.

(*Conurus nenday* or *nanday*).

By Mrs. JOHNSTONE.

(Continued from page 215 of Vol. VII).

The Nanday Conure is, I always think, an extremely handsome bird; his jet black head, and tail and wings tipped with black against the brilliant contrast of vivid green, with the scarlet stockings, make him a much admired bird in my aviary.

His harsh screaming voice is not attractive, and is his one drawback; for he is most affectionate; and he and his wife are more like the proverbial Lovebird, for they are never separated, and always roost back to back in a hollow tree.

They commenced nesting rather late, about the beginning of June, in a log nest composed of a portion of elm log, hollow, and the ends boarded up, leaving a hole at one end. The hen bird was never seen to enter the hole, and the nest remained only conjecture for some time; but the cock always sat some feet away, and screamed lustily if anyone approached.

They were much too clever, when the young were hatched, to allow anyone to see them enter the log nest; and at last, assured by my man who feeds the birds that they had not even been near the nest for days, feeling sure they had deserted it, I forced up one of the boards at the end of the nest and discovered

four fat young birds, with the quills showing black ends on their heads, and their backs covered with quills with vivid green tips.

They were left absolutely alone for some time; but finding they did not fly I ventured to look in again, *fortunately*, for one fully fledged young bird lay near the entrance, dead, with its skull crushed by a heavy blow.

The three remaining birds flew in a few days, and were carefully fed by the parents. They were taught at once to roost, as the old birds did, in an upright hollow tree; and it was pretty to see the three young birds slowly lowering themselves into the hollow, evidently hanging by their beaks inside, the old birds occupying another limb of the same tree. They fitted in most neatly; and, as the tree is hollow to the bottom, with no foothold for perching, I can only conclude they hang by their beaks. They are now fully grown, and exactly like the parents. I could see no difference between the sexes in the young birds while in the nest.

BREEDING THE RING-NECKED PARRAKEET IN AN OUTDOOR AVIARY.

By G. C. PORTER.

Having read that considerable success has been attained by some aviculturists in breeding certain species of Parrakeets, and being very interested in the Parrot family, I thought that I would attempt to follow their example.

In January, 1900, I purchased a pair of Ring-necked Parrakeets (*Palæornis torquata*) and placed them in an outdoor aviary in April. The aviary is a lean-to, about a yard wide and ten feet long, and was fitted with natural branches. In this I suspended a four-and-a-half gallon barrel. The hen bird soon began to persecute the cock in a most cruel manner, pulling out most of his feathers and worrying him from morning to night; "hen-pecked" is a mild term to express her treatment of him. On May 19th, she had a sharp attack of egg-binding, but fortunately she dropped the egg on the bottom of the aviary. On May 22nd, she laid an egg in the barrel, which she incubated very assiduously, and brought off a fine young one on June 18th. The hen did not exhibit any anxiety when I took it out of the barrel for inspection.

Young Parrots, as Dr. Greene remarks, are extremely ugly little birds, the beak and head being of enormous size in comparison with the rest of the body; this one was no exception to

the rule: it made very good progress and is now finger tame, and as large as its parents.

During the Winter the hen commenced to persecute the cock again to such an alarming extent that, I firmly believe, she would have killed him had I not interfered.

No doubt your readers have noticed the peculiar way the hen scratches in the earth, forming holes and burrows of considerable size. This, apparently, is only indulged in by the hen; the cock, as far as my experience goes, never does so.

Next year the hen laid again, on March 30th, but this clutch of four, although fertile, were killed by a severe late frost. The cock Ring-neck did not assist in incubation, but kept the hen well supplied with food. A small supply of sponge-cake and fruit was given, in addition to hemp- and canary-seed.

The hen laid two more eggs, from which two fine young birds were hatched on June 1st, 1901; but one, when half grown, crawled out of the hole and fell heavily on to the gravel below, the result being instantaneous death: the other emerged from the barrel in August, and was successfully reared. The hen treated the young, on their entry from the barrel, in the cruel way she treated the cock, so after a few days I removed them to another aviary. These young birds make charming pets, if taken early from the nest and tamed, allowing themselves to be picked up and handled, yet showing absolutely no sign of fear.

Contrary to the experience of many writers, I have not found the Ring-neck a very noisy bird; the only time that they do make a considerable amount of noise is when they see a cat, and then their voices are somewhat penetrating. Altogether, the Ring-neck has many points in its favour, being a quiet, frugal bird, and it quite deserves its present popularity.

The young, for the first year, are much smaller than their parents.

OUTDOOR AVIARIES.

By JOHN SERGEANT.

The shape, size and position of outdoor aviaries are so often governed by the exigencies of space in our gardens that it becomes a matter difficult of solution, what form to adopt in construction. No odd corner, relinquished because one can get nothing to grow there, will do; the best and sunniest position must be given up, or failure will result. The position should be facing South, or S.-S.-East. An aviary I had faced South-East,

and I found it successful ; still I think due South is best, unless very well sheltered.

There is a diversity of opinion in regard to covering the top of the flight, or leaving it open. I know one owner of a large aviary who has had it roofed over, and vows that his birds are healthier for it. On the other hand, I have never had any of my aviaries entirely covered, and am not aware that my birds suffered through it. The greatest objection, to my mind, to having a roof over the flight is, that you are then unable, without a great deal of labour in watering, to have grass and shrubs and trees, and all the growing things that give to a well arranged aviary the appearance of a woodland glade, and that enhances its attractiveness a thousand fold. Compare a Parrakeet aviary, with its bare whittled perches, to a mixed aviary, containing birds comparatively harmless to vegetation, with ivy-covered walls, lovely green sward and flourishing shrubs and trees ; and you will at once understand what I mean. Of course the former makes up to a certain extent by the brilliance of the plumage of its occupants, but still there is something wanting, and that something is greenery. Make the surroundings of your birds as natural as possible, study their requirements, and success will attend you.

I went the other day to look at an aviary recently erected at a cost of over £100 by a Corporation, in one of their Parks. The general idea of a long narrow flight, placed against a wall of imitation rock work, down which in one place a small waterfall was made, leading into a pool, was very good indeed ; but the error of having a small dark house or shelter with a low entrance, not half the height of the aviary, was made. I prophesied, at the time, that the birds would not go into it, and have since learned that it is being altered for that reason. The house or shelter is useless as such, unless it is bright and cheerful. The birds, except they are forced, in consequence of the food being kept there, will never enter it, and most certainly will never roost there ; and this will end by deaths amongst the more delicate birds as the nights become colder.

The seed should always be kept in the house, as the birds will become familiarised with the surroundings there, and are more likely to roost inside ; but, unfortunately, there are several objections to keeping the insectivorous bird food there, not the least of which is that it becomes sour much sooner in the close atmosphere of the house in summer. I, therefore, recommend a wooden food-holder, made of $\frac{1}{4}$ -inch pine, the

top, or roof, in the form of a pyramid. Underneath, is fixed a square platform to hold the food dish; surrounded on the four sides by a perch. Mine was suspended from the top of the aviary by its apex, and the pyramidal roof overhanging the food saucer on all sides, the food was kept clean and dry, and—being entirely in the open, though sheltered from sun and rain—very seldom went sour; and it also had the advantage of being quite inaccessible to mice. To take away from the bareness of this food-holder, and to add to its picturesqueness, the wooden roof could be thatched with heather, and very pretty it would look.

The drinking fountain is one of the details, and a very essential one, upon which a great amount of thought can be profitably expended. If you have water laid on and are able to have an outlet to a drain, then the whole thing is at once reduced merely to the question as to what form the receptacle has to take, whether merely a zinc dish let into the ground, a picturesque concrete pool, or a fountain of the conventional type. Whatever you have, or however arranged, try and avoid any possibility of the water becoming foul, have every portion accessible for a good scrubbing periodically, as foul water engenders more disease than any number of damp raw days. In regard to the general arrangement of the aviary; it is better to have the corners covered in, and packed with pine tree loppings and birch branches, amongst which large pieces of heather can be crammed, making an almost impervious screen from the cold winds. In front of this arrange growing shrubs, to hide the bare branches; and against the walls in the centre nail small logs and tree branches longitudinally, and train ivy over them. The branches form snug roosting and nesting places, much more so than if the ivy was nailed flat against the wall.

The centre of the aviary should be laid down with grass; and if there is room a fairly large tree might be planted in the middle of the grass plot, but as this would not be required for cover, it need not necessarily be an evergreen; a pyramid apple or pear would be very suitable. The grass should be regularly mown and swept; the latter is most important, as it continually freshens the surface and removes all objectionable matter.

A gravel pathway might be arranged along the front inside, as, besides being beneficial for the birds to peck at, it affords a pretty contrast with the grass.

The above few rough notes may perhaps prove of some

help to any of our members who are contemplating discarding cages for an outdoor aviary.

[The above was written, and in the Editor's hands, before the appearance of Miss Alderson's most interesting description of her aviary, in our last number. And I should like to take the opportunity afforded me by the Editor, in the return of the proof for correction, to add this note of appreciation and congratulation.—J. S.]

MY FIRST AVIARY.

By ARTHUR GILL, M.R.C.V.S.

Some months ago it was suggested in the *Avicultural Magazine* that members would be rendering a signal service, to others of our Society who were inexperienced, if they would furnish particulars of the construction of their several aviaries. I have been hoping ever since that some one more experienced than myself, would start what should be a very interesting as well as an instructive correspondence.

Doubtless the secret of success in our pastime is the suitable housing of our birds, and I venture to give a description of one of my aviaries, not that I can tell you anything new, but it may lead to criticism and suggested improvements which would be of much use to many of us.

I have only taken up the study of foreign birds and their treatment in confinement some three or four years, but must confess my attack of avicultural fever was very acute and has lasted some time now and continues to increase in severity every day. A great friend of mine has to answer for my taking up this hobby, as it was the fact of seeing his birds that made me wish to start an aviary for myself.

The Californian Quails were my first favourites, and my friend, seeing how very fond I was of these birds, gave me a fine male, in grand plumage: and as soon as I arrived home I wrote for a hen, which is now so tame that I can pick her up anywhere, and she will follow me like a dog wherever I go. She has reared five broods of lovely birds since I had her, and is now one of my greatest favourites. However, to return to the aviary question: Having the Quails, I set to work to make a home that I thought would meet their requirements and protect them against our variable climate, for, at this time, I was not aware of the hardness of this species.

I built my aviary as follows:—The outside dimensions are 16 ft. long, 12 ft. wide, 7 ft. from the ground level. The outside

flight is 12 ft. by 12 ft., and the covered part 4 ft. from back to front, by 12 ft. wide. The covered part is a lean-to, against a brick wall. The roof is of wood, covered with felt, and has two lights each measuring 4 ft. by 2 ft., which are made of Durolite (a translucent material). The upper half of the ends and front are glazed, the lower of wood. In the centre of the front is a window, hinged at the top, which may be closed at will. At the lower part of this window is another small hinged light which is left open during cold weather, the larger one being then closed. The wooden part of the front is composed of four movable sections fixed in position by screw buttons, so that in very hot weather it can be made into practically an open shed. The inside is kept cool during very hot weather by means of a ventilator at the upper part of each end.

Against the wall is nailed 2-inch wire netting reaching from the roof to within 2 ft. of the ground, into the meshes of which are inserted small branches which, altogether, make quite a hedge, which is much appreciated by the smaller birds. The aviary is furnished with the usual fixed, and swinging perches, husks, German canary cages, nest pans, boxes, etc., for nesting purposes. The flight has a good sized apple-tree in the centre, with wire work stretched round the tree trunk, and bushes dotted round about at various parts. The earth was dug out to a depth of two feet, the hole being again filled alternately with clinker, the stones sifted from gravel, cinder ash, and sharp sand. This makes the drainage so complete that, an hour or so after even a heavy rain, the sand is comparatively dry. The flight is boarded around to a height of 2 ft.

Being anxious to study the habits of the different species I usually buy several, and, when satisfied that I understand sufficiently about them, replace them with others. I feel certain there are many who kill their birds with pampering, and I find the majority do better without heat if they have plenty of exercise.

The majority of the commoner species will live well in an aviary such as I have described, providing they have a liberal and varying supply of good sound seed, green food, and insectivorous food (with a fair proportion of hard boiled egg). Although not a very pleasant pastime, I always breed gentles as long as I am able, which, when well scoured, are readily eaten by almost all my birds with benefit. Bread and milk, cuttle fish bone, and above all a plentiful supply of fresh water should always be given.

The best thing I ever did during my avicultural career was to join our Society, and I have to thank Mr. Seth-Smith for bringing it to my notice and proposing me. I also take this opportunity of thanking Mr. R. Phillipps and Dr. Butler for the advice they have kindly given me as to the treatment of birds I should certainly have lost, without their sound practical advice.

REVIEW.

FANCY PHEASANTS.*

Mr. Frank Finn is well known to our members, and his useful, and interesting articles which have appeared recently in the *Feathered World* have been, we are sure, highly appreciated by them. The appearance, therefore, of these papers in book form will be welcomed with much pleasure, as it makes a valuable addition to avicultural literature.

The Pheasant tribe contains so many species, most of which are easily kept and bred in captivity, and almost all of which are of exquisite beauty, that it seems passing strange that they are not studied more freely by aviculturists than they are at the present time. We can only suppose that the lack of knowledge as to their many attractive qualities, or of their treatment in captivity, is alone responsible for their neglect by the aviculturist.

Mr. Finn's book, which, by the way, is a marvel of cheapness, will be found most useful as a guide to the keeping and breeding of all the better known Pheasants, and their allies the Pea-fowl, Jungle-fowl, etc.

The illustrations are, on the whole, good; some are excellent, although one or two are poor.

BIRD NOTES.

Some few years ago the Government of New Zealand decided to set apart a small island called Resolution Island, situated off the South-West of the South Island, as a sanctuary for the native avifauna of the country; as many species, especially the remarkable wingless birds, were in danger of rapidly becoming extinct. A caretaker was selected in the person of Mr. Richard Henry, who now lives on the adjacent island, known as Pigeon Island, with an assistant; although, until a year or so ago, he was quite alone with only the birds as companions. A small steamer visits with supplies three times a year.

* *Fancy Pheasants and their Allies*, by FRANK FINN, F.Z.S. London: *Feathered World* Office, 9, Arundel Street, W.C. Price 1s. 6d.

According to a writer to the *Field*, Resolution Island has now become a perfect Paradise for an ornithologist. The most numerous birds at the present time appear to be the Kakapo, or Owl Parrot, a species which rarely, if ever, flies, and the Weka-rail. Curiously enough, the Kakapo breeds only every second year, being perfectly unanimous as to the time of laying, no birds breeding in the off-season. The males announce the pairing time by a peculiar drumming noise.

Mr. Henry has found the Wekas great thieves; they become extremely tame and impudent, and some that had been fed on boiled fish were so much so that he had considerable difficulty in driving them away into the bush.

The Kaka is said to make an excellent pet, and to be full of tricks. Two were kept by Mr. Henry, each of which knew its name and came when called.

Penguins are numerous on the island, as are also Kiwis, Roas, Pigeons, Ducks, Tuis, Thrushes, Crows, and Saddle-backs.

Mr. Henry noticed that the native Thrushes, which are very tame, have learnt to shell damp oats like Sparrows.

A specimen of the Carolina Crane (*Porzana carolina*) was shot in Tiree, one of the Inner Hebrides, on Oct. 25th last. This appears to be the third authentic record of the occurrence of this American species in Great Britain. In the *Field* of Dec. 7th last, appeared two excellent, almost life-size, drawings by Mr. Frohawk, showing very clearly the distinguishing features between this species and the Spotted Crane (*P. maruetta*).

Snow Buntings have recently arrived on our South Coast in some numbers, and the bird-catchers have taken a quantity. The method employed in their capture is the same as for other small birds—long nets and a brace-bird. At the commencement of the season, however, there are no decoy-birds to be had, so a difficulty presents itself. We are informed, however, that a *whitewashed* Skylark is used, and answers the purpose equally as well as a Snow Bunting.

THE SOCIETY'S MEDAL.

A Medal has been awarded to Mr. BONHOTE, for having bred the Spotted Eagle Owl of South Africa, *Bubo maculosus*.

A Medal has been awarded to Miss R. ALDERSON, for having bred the Orange-cheeked Waxbill, *Sporæginthus melpodus*, in a natural manner (see foot-note, p. xii. of this volume). A full account of the breeding of this nervous species, and of the labour and perseverance which were necessary to achieve success, will be published in our next number.

At p. 159 of Vol. V., Mr. MEADE-WALDO gave an interesting account of the successful breeding of the tiny Scops Owl, *Scops giu*, in 1899; and he states that he has bred them every year since. Before awarding a Medal, we invite any member who may be cognizant of the previous breeding of the species in the United Kingdom to communicate at once with the Secretary.

THE SOCIETY.

An impression seems to prevail amongst our members, and the public, that only those who keep birds in captivity are eligible to join our Society. This is very far from being the case. All bird-lovers are heartily welcome, whether owners of birds or not. Those who study the habits of wild birds are specially welcome.

This reminds us that complaint is made that there is not more about our birds *in freedom* to be learned through the Society. If some of our members will take the hint, and help us by writing about birds, British or foreign, in the wild state, we shall be particularly grateful.

On the other hand, it should not be overlooked that, when writing of the birds in captivity, we often bring out details in the nature of species which are practically undiscoverable by the field naturalist, immensely valuable as his observations must ever be. The two studies should march together hand in hand, the one complementing the other, both being steadied and guided by the work of the scientist. R. P.

THE ILLUSTRATIONS.

From letters received by the Secretary, it is evident that our members have no idea of the amount of time and work involved in the production of coloured illustrations. Some complain, in a very injured strain, that no coloured plate appeared in the first number of the current volume.

We may explain briefly the process adopted for hand-coloured illustrations. The artist (who is often a busy man, and not always able to undertake work just when he is wanted) has often to travel some distance to the residence of the aviculturist who owns the subject of the illustration. A drawing often takes several days to complete, and, as the artist is generally unable to devote several days in succession to any one picture, sometimes ten days, or a fortnight elapses before one drawing is completed.

When the water-colour drawings are finished, the next process is to re-draw these on stone, a proceeding which again occupies considerable time. It is desirable, for several reasons, that four pictures should be drawn on one stone.

The lithographing finished, the plates have to be printed, proofs submitted and approved; lettering put on, and lettered proofs again submitted for approval. When these are passed, the whole four can be printed off (500 copies of each). When the printing is done, each plate has to be hand-coloured; and, as the colourists are often busy with work for other scientific publications, it is evident that some time must elapse before the plates are ready for the Magazine.

Since we undertook the arrangements for the illustrations, no pains have been spared, and no time wasted, in pushing the coloured plates forward as rapidly as possible.

At the present time we have four lithographed plates printed; and, if the colourists do not fail us, we hope to publish the first in our next number. It is the intention of the Executive Committee to issue six coloured plates before November next, if possible.

We would remind those members who think we are treating them unfairly with regard to the illustrations that we have, in three months, issued no less than four black and white plates (two of which appear in this number); and it is our intention to give several more in the present volume, besides the aforesaid six *hand-coloured* plates.

Since the first of November last, the Magazine has also been printed on better paper than formerly.

EDITOR.

CORRESPONDENCE.

MISTLETOE BERRIES.

SIR,—Can you tell me whether caged birds of any sort will eat mistletoe berries? So far as my observation goes, and for nearly forty years I have had exceptionally good opportunities of exercising it, the only one of our wild birds that will take them is the Mistletoe Thrush. Certainly I did once see one plucked by a Redbreast, but it was immediately dropped; while I have known a Blackbird in a state of extreme destitution perch within a couple of inches of a mistletoe berry and not offer to take it.

I hope you or some one will try whether any, and if so which, birds will eat mistletoe berries. I think there can be no danger in making the experiment as the Mistletoe Thrushes eat them so largely—in fact all they can get; but they will not touch them till they are fully ripe. We have much mistletoe in the garden of this College—mostly on apple trees, but there is some on hawthorns, and two large plants on a sycamore—the first I ever saw or heard of on such a tree.

I shall be very glad to learn what may be the result of offering mistletoe berries to birds, but I believe they should be quite ripe—and that they generally are not before the end of January. I think the berries on the mistletoe that is cut for Christmas never ripen at all, but gradually dry up instead of deliquescing as those which are left on the plant do. (*b*).

Magdalen College, Cambridge.

ALFRED NEWTON.

[Perhaps some of our members, especially those who keep British birds, will experiment with the mistletoe berries, and let us know the results. Some writers express a doubt as to the Mistletoe Thrush (or Missel-Thrush as it is often called, a phonetic spelling of Mistle or Mistletoe Thrush) eating them at all freely; but Professor Newton not only tells us that it does, but adds the information that the berries must be fully *ripe*—the rock perchance over which these writers stumbled.—R. P.]

A BLOOD-THIRSTY MOCKING-BIRD: IMPORTATION OF FOREIGN BIRDS.

SIR,—I am quite sure you will be surprised to hear that the Mocking-bird that we have had communications about before (see page 13 of current

(*b*) I have some orchards, the trees in which are covered with mistletoe as I have never seen them elsewhere. Mistletoe Thrushes also abound in my grounds. Whether they eat the mistletoe-berries late in the winter I can't say: they certainly do not touch them up to Christmas, though they have already (December 14th) nearly stripped my Yews, Irish Yews, and Honeysuckle of berries.—O. E. C.

Volume) has the same blood-thirsty characteristics as Mr. Phillipps' Whistling-bird.

I had several accidents in the aviary that I could not account for, often finding small birds lying about partly eaten. For some time I kept my Mocking friend all to himself, but, when feeding him the other day, a Goldfinch got in from the other compartment. I went away, and, returning in about an hour, found the Goldfinch on the ground with its head open, and brains completely devoured. I caught the Mocking-bird afterwards chasing the smaller birds; he darts at them and catches them with his legs, and kills them like a Hawk. He still has the cold; but I will not despair of him as long as he is able to feed on Goldfinches and Orange Bishops.

I wish some of our members would write about the importation of foreign birds, and the various ports they are picked up at, and how and by whom they are caught.

H. B. RATHBORNE.

[NOTE.—The question asked by Mr. Rathborne embraces too much ground for any one person to be acquainted with. Dr. Butler's article in this number deals with a somewhat kindred subject as regards the birds of South Africa. Perhaps some other of our members may be able to give us information concerning birds coming from different parts of the world.—R. P.]

NESTING OF THE BLACK-HEADED GOULDIAN FINCH.

SIR.—Several of our members have succeeded in raising the beautiful Gouldians, and from time to time accounts have appeared of the nesting. Each record adds somewhat to one's knowledge as to the ways and means by which this happy result may be attained. I therefore take up my pen in the hope that what I have to tell may contain some little hints that may be of use to others.

First, it seems to me absolutely necessary that Gouldian-finches should be perfectly strong and thoroughly acclimatized before they are allowed to go to nest, or clear eggs only are the result. I tried, and failed again and again with somewhat newly imported birds; but this season I set to work more hopefully, as my two hen Black-heads had been in England over two years. I had a good healthy cock; and a member of our Society kindly supplied me with another that had been raised in his bird-room.

I gave my Gouldians—and a pair of Diamond Sparrows—a small garden aviary to themselves. It was late in May before they were put in, and very soon after they began to moult. The moulting over, they fussed about so long over the choice of a nesting-place that the best part of the summer passed before any progress was made.

For nesting material my Gouldians have invariably chosen a fine sort of grass that grows on heath land; and without this, it seems to me, they would not build at all—they use this and nothing else. The nests being built, eggs were laid, the sitting commenced, and in due course the sound of chirps from many voices came from both nests.

Unfortunately they were too close together, one nest being just above the other: the hen of the upper one began chasing the other, and preventing her from going to feed the young. I hoped the cock would

carry them on, he tried hard; but I suppose they were too many for him; and very soon, to my great disappointment, I found that the chirps from that nest had ceased. The others thrived without a hitch, and cries from baby Gouldies grew stronger and stronger, until on October 31st two strong little grey birds appeared, and were followed the day after by three more. The plumage of all five is as glossy and smooth as can be, and all were able to fly strongly from the first moment they left the nest.

And now as to food—it was simple enough, consisting only of canary and millet seed—the latter being the large white millet, as it is more sustaining than the small Indian kind that is sold in the ear. With these seeds they gave their young a quantity of cuttle-fish, and were liberally supplied, three or four times a-day, with road-side or lawn grass in seed. In the aviary is a lump of rock-salt, and I frequently saw them peck at this.

M. D. SHARP.

BLUE-BIRD AND AMERICAN CAT-BIRD.

SIR,—I have a Blue Robin that has been in perfect health for the last three years, but, since the moult, he has not regained his tail- or wing-feathers, but is, in all other ways, perfect.

Will you kindly let me know how best to treat him? He has been fed on dried flies, ants' eggs, hard-boiled egg and biscuits, and crumb of bread and a few currants at times, besides other fruits.

Since I have noticed that he has not regained his feathers, I have been giving him three mealworms each day, in a cage by himself.

I am having an American Cat-bird sent me within the course of the next few days, and should be glad to know how best to feed it, and if this is the correct name.

H. W. BURGESS.

The following answer was sent to Mr. Burgess :

All that you can do with the Blue-bird is to keep it warm, give plenty of insect-food, mealworms, cockroaches, (or spiders if you can find any); also about eight drops of syrup of phosphates in the drinking-water.

I think you are making a mistake in giving grocers' currants to your birds: they are very tough-skinned fruit and difficult of digestion.

The American Cat-bird (*Galeoscoptes carolinensis*) in its wild state feeds upon many forms of insect life, upon worms, slugs, and snails, also upon small fruits and berries.

In captivity it may be fed like the Mocking-bird, upon 'Century food,' or crushed biscuit, yolk of egg, ants' eggs, and dried flies, made into a slightly damp or crumbly mixture either with a sprinkling of water, by adding mashed boiled potato, or grated carrot.

Sweet-water grapes, orange, over-ripe pear, stewed apple, ripe currants or strawberries when in season, may be given; and a few mealworms or some other insect food should certainly not be overlooked.

A. G. BUTLER.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

BENGALESE. (Mr. A. E. Boothroyd). Found dead in straw nest: has never seemed very well.

[Death was due to an abdominal tumour pressing on the artery that comes directly from the heart, which was much dilated. The immediate cause of death was heart failure.]

CORDON BLEU, female. (Mrs. H. M. Metcalf.)

[Apoplexy was the cause of death; the bird was extremely fat].

ALARIO FINCH, female. (Miss West). Looked ill for some time; for a few days was better, but had a relapse. Showed signs of loss of breath, puffiness, and weakness.

[Cause of death—tuberculosis; one lung and the liver being full of tubercular deposit.]

BENGALESE, male. (Miss Hodgson). Did not seem to ail until a few days before death.

[Cause of death—congestion of the liver and bowels, caused probably by chill.]

COCKATIEL, male. (Miss R. Alderson). Had been ill two days, but had not looked very bright for some time. Taken suddenly ill on Dec. 4th; on the 5th could hardly stand; breathing became gradually more difficult before it died.

[Your Cockatiel suffered from cerebral hæmorrhage (apoplexy). No doubt he had fits, although you did not see him in them. The last attack of hæmorrhage was so severe that it caused death by pressure on the brain substance, which caused the want of co-ordination of muscular movements].

PEKIN ROBIN. (Mr. H. W. Burgess).

[Death was due to hæmorrhage from the liver which was ruptured, probably by external violence. It may have resulted from the bird flying against a perch.]

CALIFORNIAN QUAIL, male. (Miss B. Shepherd). Died suddenly; had been fed on canary- and millet-seed, oats, ants' eggs, egg-food, and mealworms.

[Death resulted from acute inflammation of the bowels, probably the result of a chill. I find Californian Quails do best on canary-, millet-, and a little hemp-seed, dari, wheat, and a plentiful supply of green food; preferably, chopped grass. Soft food, with egg and mealworms, is too fattening and stimulating.]

REDRUMP PARRAKEET, male. (Mrs. Johnstone). Was bred in aviary last year; looked a little puffy, which was attributed to severe weather. Suggested malformation of lower mandible, which appeared to protrude beyond the upper when found dead.

[The cause of death was pneumonia; there was no malformation of the mandible; the appearance you describe is common with Parrots after death; it occurs during the death struggle.]

ARTHUR GILL.



H. G. Woodhouse, del et lith

Manter Bros imp

PARROT FINCH. ♂ ♀.
Myithrura psittacea.

From specimens recently living in M. D. Seth Smith's Aviary

THE
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FEBRUARY, 1902.

THE PARROT-FINCH.

(Erythrura psittacea).

By D. SETH-SMITH, F.Z.S.

So popular is the Parrot-finch with those who have kept it, and so admired is it by all, that I have little doubt the illustration which appears this month will be highly appreciated by our members.

This lovely Grassfinch is, unfortunately, at the present time far rarer in this country than we could wish it to be, although during the winter of 1897-8 quite a number were imported, several of which reproduced their kind in the aviaries of various aviculturists in different parts. But it has, apparently, nearly died out amongst us, and probably few of our members own breeding pairs at the present time. This is greatly to be regretted as the species is a most desirable one for culture in our aviaries, and is by no means delicate.

I believe our member, Mr. August F. Weiner, was the first to breed the Parrot-finch in England, many years ago, since which this most desirable event did not, I believe, again take place until 1898, when young were reared in London by Mr. Philipps, and in Yorkshire by Mr. St. Quintin (see Vol. IV. page 199, and Vol. V. page 20), although, in France, Mr. A. Savage reared several young the year before this, four of which eventually came into the present writer's possession.

I have never attained success in breeding this species, although nests were built and eggs laid. My pair would sit splendidly until just before the eggs were due to hatch, when they deserted and commenced building another nest. The eggs, in every case, were found to contain young.

One often succeeds in breeding birds the second year, although failing to do so the first year, and I quite hoped that I

should eventually be rewarded for my trouble by succeeding in rearing some young Parrot-finches; but, alas, these hopes were never realized, for a horrible stove, which was used for heating the aviary, went wrong one night, and my fine pair of Parrot-finches, besides a large number of other birds, succumbed to the fumes.

The sexes of this species are alike in plumage, and it is no easy matter for a novice to select a true pair. A practised eye can, however, usually succeed in doing so, as the cocks generally have a rather more masculine appearance, and are, if anything, a shade brighter in colour than their mates. It has also been stated that the colour of the legs differs in the sexes; but I doubt if this is always the case. I noticed no difference in this respect in my pair.

White millet and canary-seed form the staple food of the Parrot-finch in captivity, but it is decidedly fond of insects of various kinds, and insect food should be frequently given in some form. Green food, such as flowering grass and chick-weed, should be freely supplied in the summer, but the latter must be given with extreme caution during the winter months.

The subject of this paper is one of the nicest finches that one can wish to possess, that is providing a *song*-bird is not required, as its vocal powers are very limited. It is almost unsurpassed for beauty of plumage, never seems to mope or be unhappy, but is always cheerful and happy and becomes very tame. One that I had took mealworms from my hand without the least fear.

This species is a native of the island of New Caledonia.

SOUTH AFRICAN CAGE-BIRDS.

By A. G. BUTLER, Ph.D.

(Continued from p. 45.)

I now pass on to the more easily imported and more generally known seed-eating birds, commencing with the typical Weavers.

As one would expect, from the resemblance which exists between the young, females, and winter plumage of the males, to that of the Sedge Warblers (*Acrocephalus*) most of these birds frequent reeds and rushes; but that this rule is not invariable will be evident from the fact that the Olive and Yellow Weaver

(*Hyphanturgus olivaceus*), which is a common Southern species, is said "to build indiscriminately over the driest spots, or over water." The Eastern form of the Black-headed Weaver (*Hyphantornis nigriceps*) occurs in Natal; but if it takes after its relative *H. melanocephalus* I would not care to have it. The Western form is extremely spiteful and liable at any time to kill the smaller species by one blow of its powerful beak; indeed my male of *H. melanocephalus* killed seven or eight Orange and Napoleon Weavers in this manner a little over a year ago. The Spotted-backed Weaver (*H. spilonorhynchus*) also occurs in Natal, in Grahamstown, King William's Town, etc. The Black-fronted Weaver (*H. velatus*), which is very destructive to cereals in Natal, is frequently imported; like most of its kind it builds its nest among reeds: my specimen spends its days in quarrelling with the Black-headed bird.

As soon as the Orange River is crossed a very striking species becomes abundant,—the White-browed Weaver (*Ploceipasser mahali*) which would be well worth importing; it builds in mimosas and is said to be a most melodious songster—a marvel among the usually harsh-voiced Weavers!

Of the so-called "Bishops," the well-known Grenadier Weaver (*Pyromelana oryx*) is said to be not uncommon; but local, though distributed over the whole colony, frequenting only swampy places on the banks of rivers where it suspends its nest among the flags.

The Yellow-shouldered Weaver (*Pyromelana capensis*) and its smaller race (*P. xanthomelas*) are found in many parts of S. Africa, the larger and best known form being common near Grahamstown. I have never purchased this bird because I saw how aggressive it was in Mr. Abrahams' bird-room.

The Taha Bishop (*P. taha*) is allied to the well-known Napoleon Weaver and is very destructive to cornfields: it is found commonly in marshy places and ditches, among the reeds, from the Modder River to Potchefstroom.

The Red-billed Weaver (*Quelea quelea*) is already so freely imported, and so cheap, that it is hardly a fit subject for the private importer. Of the Whydah-birds the Ultramarine-finch is also hardly worth importing, for the same reason; but the well-known Long-tailed Whydah (*Chera progné*) is still far too little imported; it is common in many parts of S. Africa and could easily be obtained in numbers by the negro children. The Red-collared Whydah (*Vidua ardens*) is said to be common near

King William's Town and Eland's Post, and it occurs in other parts of Eastern S. Africa; the well-known Pin-tailed Whydah (*Vidua principalis*) is probably too familiar to aviculturists to be worth importing.

The Bronze Mannikin (*Spermestes cucullata*), which is usually imported from the West Coast, has been seen in abundance in Grahamstown. The Red-headed-finch (*Amadina erythrocephala*) is local, and appears not to occur very far to the South, but it is found in Griqua Land, Namaqua and Damara Lands, the Transvaal, etc., and in some places is very common.

Among the Waxbills, the Red-faced-finch (*Pytelia melba*) is believed to be strictly a bird of the interior; it occurs in pairs, and is not uncommon on the Crocodile River and in the Rustenberg district; it has also been met with on the Limpopo, Matabeli, Damara, and Great Namaqua Lands. The common Gold-breasted (or Zebra) Waxbill has been seen near Maritzburg, but is too freely imported already to be worth troubling about; Dufresne's Waxbill (*Estrela dufrenoyi*) is found near Grahamstown, Natal, &c., but in small numbers, not more than eight or ten being seen together. The Southern Grey Waxbill (*E. incana*) has been found in Natal, but not commonly, but the so-called St. Helena Waxbill (*E. astrilda*) is met with in prodigious flocks throughout the colony.

The much prized Violet-eared Waxbill (*Uraginthus granatinus*) is tolerably common in the Transvaal, along the Limpopo, and in Damara Land; two or three of the extremely delicate African Fire-finches (*Lagonosticta*) also occur in S. Africa, but the importation of these Waxbills must always be unsatisfactory, and their price in this country is so moderate that it is hardly worth while to trouble about them.

Of the typical finches the Alario will probably always be a favourite on account of its sweet song; it is obtainable at Port Elizabeth and many other localities, and my friend, Mr. Distant, of "The Zoologist," got a specimen in the Transvaal which he brought home with him (I believe it died in 1901). The Cape Sparrow (*Passer arnatus*), of which our Editor recently gave us an illustrated account in the Magazine, is well worth importing; it is somewhat local in S. Africa, but has been met with not far from Grahamstown and in various other localities. The Streaky-headed Grosbeak (*Poliospiza gularis*) may be obtained in Natal, but it is not a specially attractive bird, and it is doubtful whether it has any song. The common Green Singing-finch is too easily

obtained in this country to be worth troubling about, and the White-throated Seed-eater is not a pleasing cage-bird, but is common at Colesberg, and obtainable at Port Elizabeth. The widely distributed and common Sulphur Seed-eater, the "Geel Saysie" of the Colonists, is rarely imported, and though hardly as pretty as our hen Greenfinch, and with not a very fine song, might be worth bringing home. The St. Helena Seed-eater, the "Kleine Seisje" of the Colonists, is abundant and gregarious throughout the Colony, and ought to be, but is not, largely imported; it is the best songster of all the larger Serins and the most beautiful. The Cape Canary (*Serinus canicollis*) is common throughout the Colony and would be worth importing to cross with the domesticated Canary, as it produces good songsters when thus hybridized. The Totta Siskin, known as "Pietje Canarie," which has, of late, been imported from the Cape, is another common and easily obtainable species, the male of which is said to breed readily with hens of the familiar cage-Canary.

Of the Buntings, the Cape Bunting (*Fringillaria capensis*) could doubtless be secured; it is rather an effectively coloured bird; the Lark-like Bunting (*E. impetuanus*) is common about Nel's Poort and has "a short lively song." It has been obtained at King William's Town. The pretty Gold-breasted Bunting (*F. flaviventris*) may be obtained near King William's Town, Grahamstown, Eland's Post, Natal, and is common on the Limpopo, in Mashona and Damara Lands.

Some years since I called attention to the fact that all Larks are largely seed-eaters; now in the case of the Finch-Larks of Africa (*Pyrrhuloxia*) the food consists almost entirely, or entirely, of seeds. The only species of *Pyrrhuloxia* hitherto imported would seem to be the White-headed Finch-Lark (*P. verticalis*), specimens of which have been in the possession of the London Zoological Gardens. It is common near Colesberg and in Damara and Great Namaqua Lands. Smith's Finch-Lark (*P. smithii*), which occurs at Colesberg, on the left bank of the Orange River, and is common on the banks of the Limpopo might doubtless be secured, as well as the Dark-naped Finch-Lark (*P. australis*), which is found near King William's Town and is plentiful near Colesberg. I do not, however, think that these sombrely-coloured little birds will ever be very popular amongst aviculturists, as they do not seem to be gifted with song.

Of the Long-billed Larks; Smith's Lark (*Certhilauda garrula*), said to be a very noisy bird, might be obtained in the northern parts of the Colony; the Grey-collared Lark (*Alamon*

semitorquata) is found near Grahamstown; the Cape Lark (*A. nivosa*) is plentiful at Nel's Poort, in the Karroo, and in Little Namaqua Land. These birds feed upon seeds and insects.

The Rufous-capped, or Red-headed Lark (*Tephrocorys cinerea*) is common throughout the Colony. If imported it should be plentifully supplied with grit, as it is said to swallow much gravel with its food.

Another abundant bird is the Thick-billed Lark (*Calendula crassirostris*), a handsome species which ought, I should think, to be a singer, although Messrs. Sharpe and Layard say nothing about its notes. The prettily-coloured Bar-tailed Lark is said to be common at Port Elizabeth and would make an interesting Show-bird, though its vocal utterances seem to be limited to a long shrill "phew," most appropriate to the warm sandy spots which it delights in. The Rufous-naped Lark (*Mirafra africana*) is generally seen in pairs between Algoa Bay and Grahamstown; it occurs in Natal, where it is difficult to flush, as it runs with great rapidity. At Port Elizabeth it is rare, in the Transvaal it is tolerably plentiful to the west of Potchefstroom.

Among the Pipits the Cape Long-claw (*Macronyx capensis*), which both mews and sings, is very common in Natal. Port Elizabeth, East London, and the Knysna district, also locally in the Transvaal. The Red-breasted Long-claw (*M. amcliae*), which is a handsome bird, also occurs on marshy flats along the coast of Natal. The commonest of the S. African species, however, is said to be the Cinnamon-backed Pipit, which is found in abundance all over the Colony. The tiny Short-tailed Pipit (*Anthus brachyurus*), a terrestrial bird which always alights on the ground, is a common summer bird in Natal; it is said to make a charming aviary pet.

Of the Wagtails,* an abundant species throughout the Colony is the Cape Wagtail (*Motacilla capensis*); it has a pretty song. The Blue-headed Wagtail (*Budytes flava*) appears in the Transvaal in considerable numbers in the spring.

I must reserve the Doves, Game-birds, etc., for my next paper.

(To be Concluded).

* These are unavoidably included in the present papers, though purely insectivorous (or at any rate not granivorous) birds, inasmuch as they belong to the same family with the partly granivorous Pipits.—A. G. B.

NESTING OF THE ORANGE-CHEEKED WAXBILL.

(*Sporæginthus melpodus*).

By ROSIE ALDERSON.

It is with much pleasure that I write about my little Orange-cheeked Waxbills rearing their young ones, because they were bred in a *cage*, not in the open aviary ; and this, I think, should be a great encouragement to those who have only a limited space in which to keep their birds. My pair of Orange-cheeks cost 5/6, and came from Mr. R. Green, of Covent Garden, from whom I also obtained my breeding Lavender Finches.

It was in April, 1898, that they arrived, in perfect condition and plumage, and I turned them loose in an aviary with other small birds as companions. Since then the Orange-cheeks have made many nests, but this is the first year that they have successfully brought off their young ones.

I have no notes about them the year they arrived, but during 1899 they were very busy making nest after nest (chiefly of hay or grass stems) on the floor. They began in April, and must have made about six nests ; but it was not until the end of June that I knew for certain there were any eggs. This time there were either three or four laid, and the birds seemed to sit well, though they always flew off the nest when I went into the aviary. They are such nervous little birds, and directly I entered a little red beak would come peeping out, and in a moment the bird would fly off the nest, only to return when I had gone. But this nest that promised well was a failure like the others, I do not know why.

Next year (1900) it was the same thing over again. Three or four nests were built, and each time the birds were disturbed or deserted. In one egg I found a fully formed young bird. I could see its beak, eyes, and even some dark spots in its throat. The third year passed and still no young ones ; and I determined that, all being well, another season we would find some means of doing better.

Last April my brave little birds began to build again, and as usual the nest was disturbed at once, this time by a Bronze Mannikin. I felt very indignant, and decided I would catch up the Orange-cheeks and cage them. They could do no worse in a cage than they had done already, and at least they would be undisturbed. I have several large wooden cages let out of the walls of the aviary. Though it makes the outside shape of the

aviary rather irregular, I prefer it to having extra cages inside on the aviary floor, where they take up much room. This particular let-out cage is 36in. by 21in. by 21in. high. It has three sides of woodwork, with a strip of glass in the back for extra light, and a wire front. High up at one end of this cage I fastened a very small wooden travelling cage, amongst some thick bits of Scotch fir, and hung a curtain over part of the wire front so as to screen the end where the nest was. Having completed these arrangements I caught the Orange-cheeks and put them in their new quarters. But for a time everything seemed a failure. Nest after nest was made in the box, and eggs were laid. Once the eggs were hatched, and a brood reared until they must have been a fortnight old; and then they were all thrown out of the nest, and found dead on the sand tray. One young bird was quite large and covered with grey down, the quill feathers in its wings just coming.

It was really very trying, and I began to lose my sympathy for the Orange-cheeks; and, being much taken up just then with my new aviary, I gave them but little attention.

I left home the latter part of August; and, while I was away my birds' attendant, George Hallam, who had always been greatly interested in the Orange-cheeks, emptied the nest of all the old materials; and at once it was evident what was wrong, for the nest was badly infested with red mite. My man painted the box thoroughly with Fir Tree oil (a thing I ought to have done at first, but stupidly I associated red mite only with Canaries), and gave the birds some fresh material in the shape of hay and feathers. They at once set to work and began a new nest, and by the next day it was finished.

I came home on the 14th September, and found that the Orange-cheeks had then been sitting well for about a week. Some two days later I began putting cut up mealworms in a small saucer in the cage, being careful to always leave some over-night, in case the young should hatch before morning. I did this regularly night after night, and kept up the supply in the day as well. Many of the mealworms were eaten, but whether by the old birds or young ones I could not tell. I never saw them carry any to the nest, so possibly they fed the young from the crop from the first.

And now ensued a weary time of waiting. The old birds still kept to the nest, and ate a quantity of mealworms, though I noticed they did not seem to care for the heads, but nearly always left them. Day after day passed and still no sign, until, when

nearly a month had gone by, I began to think the Orange-cheeks were playing a heartless practical joke on me, and that all the dozens of mealworms I had given them through the summer was so much money wasted.

When the second week in October arrived, I sternly determined I would not be imposed on any longer ; I would give them a few days more grace, and, if no young ones appeared by then, the nest should be taken away.

Now the nest-box was in such a position that we could not see into it properly ; but the little birds evidently thought we could, for, on October 12th, they drew a very large feather right across the entrance hole, evidently determined not to allow our curiosity to be satisfied a moment sooner than they chose.

Next day was Sunday, and imagine my surprise and delight when my man sent in word, first thing in the morning, that two little Orange-cheeks were out of the nest. You may be sure I was soon down at the aviary to see them, and felt that all our patient waiting was fully rewarded. The parents were in a great state of excitement and pride ; and really I do not wonder, for the babies were the very sweetest little things I have ever seen—so small and dainty, and scarcely larger than a large “grandfather” bumble bee. Their backs were soft mouse colour, and breasts grey. Their tails were short and spread like fans, and were dark with a patch of dull red at the root ; legs and feet grey, beak black or nearly so, with a tiny spot of white skin at each side, and eyes very dark and bright. Both birds were fully feathered, and one distinctly showed the orange cheek-marks. In colouring the young birds were really very like their parents, but in darker shades. It was most amusing to see how the little things jerked their tails just in the same way as the old birds. I put a cosy nest-box on the floor of the cage, and the young birds seemed very glad to nestle in it, for it was a long climb back to the old nest.

But the Orange-cheeks had still another pleasant surprise in store for us. Next day two more young ones appeared, and the parents’ pride in the quartette knew no bounds. The four made the prettiest little picture ; they would all sit nestling together on the floor in a row, peeping out at me with their bright eyes in a most fearless way. They were very precocious ; I saw one feeding on spray millet almost at once, and another could fly well about the cage directly it left the nest.

I think the old ones fed them, too, with seed, for some white millet was seen in the crop of one young one ; but strangely

enough I only saw them being fed once, and that was when they were considerably older. All four birds looked strong and healthy, though one had its toes curled up, but apart from this defect it looked perfectly well; they all learnt to fly very soon. For eleven days the little family flourished, and then one young one began to look ruffled and ill. Some olive oil seemed to do it good, but it died rather suddenly a day or two later. (Dr. Butler very kindly reported on it—see page 36 of present volume).

To add to my misfortunes, a second young one suddenly lost all power of flight, and could not even get on the perch. It was a very fine bird, and looked in the best of health. So now out of the four I had only one perfect bird left, for the third seemed crippled, though looking otherwise quite healthy.

I came to the conclusion that I had better let them all loose in the aviary, so turned them out of the cage and took down the nest. It was very dirty inside, and full of red mite, and several small insects, very shiny and black. There was one old egg in the nest, and one fresh one. The eggs are pure white, very pretty, rounded at each end, and about the size of a green pea.

The Orange-cheeks were delighted to get their liberty, and at once flew into the branches. I tied a long bare branch from the floor to one of the upper boughs, and in this way the little one who could not fly managed to climb up and join the others. It was very pretty to see the old birds encouraging it, and showing it the way. Sometimes when it was patient it got up without mishap, but sometimes it would try and go too fast and tumble off, when, like King Bruce's spider, it would have to try again.

Occasionally I caught it, and put it with its family amidst much rejoicing. I put a little nest-box filled with hay and feathers on the floor, and the delicate young ones (who kept much together) frequently used it to nestle and sleep in. Of course, during the first few days I turned off the running water; and also, when they first left the nest, I took away the bath, for fear they should fall in and be drowned.

About a month after they left the nest, I lost the young bird with the crippled feet. I was in the aviary at the time, and heard something fall behind me, and on turning round found the poor little thing dead on the floor. Only a minute before it had looked perfectly well, and its feet had much improved, and were getting quite strong and straight. It was a very bonnie little

bird, and the prettiest of the three. I sent its body to Mr. Gill, who very kindly reported on it in the December number.

On hearing that its death was due to injury, I determined to move the Orange-cheeks back to their old aviary, for the one in which they were at this time was also inhabited by many larger birds than themselves ; and now that my suspicions were aroused I began to find many other conclusive proofs. The dead bird's tail had been plucked out earlier, and the old birds and the strongest young one were rapidly getting into very bad plumage, though at first I put this down to moulting. I have since found out that the culprit was a new arrival, a Red-crested Cardinal. After I had moved some of the Orange-cheeks, I found out that it pecked many of the other birds, though, strange to say, a Lavender Finch and Cordon Bleu remained untouched. It was only by watching in the aviary porch that I discovered this. Sometimes one can learn more from ten minutes' quiet observation than by passing in and out a hundred times.

And now a very curious thing happened ; after the Orange-cheeks were put back in their old aviary, the young one that could not fly for so long began gradually to regain the use of its wings, and it can now fly quite well again. It is a very handsome bird, and the larger of the two. The other one is strong and healthy, but at present is not in very good feather. I suppose the young ones will now be ten or eleven weeks old ; and the finer bird can hardly be distinguished from an adult specimen ; perhaps it may be a shade darker, and the beak not quite such a clear red, but that is all the difference. The colour of their beaks began to change when they had left the nest about a week.

I gave egg biscuit (crushed) and maw seed mixed dry (the birds were very fond of the latter item), various grass seeds, canary, Indian, and Italian millet, flowering grass, and an abundance of spray millet, which they delight in. Besides this, they had cut-up mealworms, and a few aphides off the rose trees.

The parents seem to have lost much of their interest in the nestlings ; but the young birds are devoted to each other. I saw lately Orange-cheeks could be had for as little as 2/6 a pair. Were I to begin again I would tie a small nest-box (with a hinged back) to the *outside* of the wire front—bending the wires just in front of the entrance hole to allow the birds to enter. If the back of the nest-box had a small piece of glass let in, it would be all the better ; it could have a little cloth fastened to

overhang the glass, and in this way the nest could be kept clean, and quiet observations made when the birds were off the nest without disturbing them.

A DRY BATH CAGE; WEAVERS IN CAGES.

By A. A. PEARSON.

A note from the Editor, petitioning members to help him by sending something to edit, induces me to take up my pen at the risk of feeling very unimportant alongside the interesting communications of the experts and veterans of our Society, which some of us just devour. Perhaps there are others who, like myself, for one reason or another, have had to be content with cages, and peruse the descriptions of members' *aviaries* with somewhat envious feelings. I think, however, that five years' study of birds in cages has given me a more detailed knowledge of them than if they had been at liberty in a large area. In good sized cages they can be kept in perfect health and feather, by good food, ventilation, cleanliness, and regular bathing; and when the cages are enamelled a suitable quiet colour, the wires blackened, and tree branches for perches, they show off to much better advantage than in aviaries. The drawback is the time occupied in cleaning and bathing. To obviate the latter I designed a cage which permits a bath to remain in all day without even a splash on the sand tray. At the bottom corner, close to the wooden side, and alongside the sand tray, is a partition or compartment into which slides a drawer 9 inches long by 5 inches wide, and 4 inches deep, into which I put a common tooth-brush dish brimful of water. Over the top of the drawer compartment, resting on two inclined rebates, is a pane of glass forming a lean-to roof over the drawer. The birds see the water through the glass and enter from the back end, which is left open. Owing to the depth of the drawer and the slanting roof all the splashings are arrested. The wooden drawer is well enamelled inside and outside, and only requires a coat inside once a year to keep it water-tight. Drinking water is supplied separately in a fountain. The cage is 3 feet 6 inches by 3 feet 6 inches by 16 inches back to front.

Referring to Mr. Savage's article on page 199 Vol. VII., I have for three years kept in the above cage three Weavers and two White Javas. The Weavers are a Scarlet Madagascar, a Napoleon, and (notwithstanding Dr. Butler's warning foot-note) a

Rufous-neck (*Hyphantornis cucullata*). The last is a big restless bird with a murderous looking beak exactly like the pick end of my Chamoni ice-axe, and evil looking red eyes. I kept it twelve months before summoning courage to trust it with the smaller birds. However, beyond elbowing a bird now and then off a perch it fancies, it has never done any harm, but my experience is, of course, confined to the one specimen. Its greediness after mealworms and flies is its greatest drawback. I am simply obliged to scatter ten mealworms over the tray to give the Madagascar a chance of *one*.

One of the White Javas is the pest of the establishment. It lives on the top of a Hartz cage hung up in one corner and viciously attacks every other bird who attempts to alight on it, including the *Hyphantornis*. The latter weaves thick arches and bowers of the long tough flowering grasses with which I feed them in summer. Mr. Savage says he has not heard a sound from his Napoleon. I have one equally silent which also never weaves, but it has come regularly into brilliant plumage for five years. Another one, which assumes only a dingy yellow and black, makes a noise like shaking a heavy chain up and down in a sack, accompanied by a humming noise in its throat, and weaves every bit of grass into the cage wires. On our late Queen's Diamond Jubilee Day it festooned three reels of coloured sewing silks all over the Dome of a large Crystal Palace cage, with a perfect rosette of crimson silk on an apple branch.

I find the Madagascar never colours below the chest unless it has frequent mealworms and soft food some time before and during the moult, and also often Parrish's food in the water for the sake of the phosphate of iron, when it will colour right down to the legs.

I would like to add, in conclusion, that after a trial of six winters, during two of which I have done without any heat in the bird-room, I am convinced that, for a mixed collection in *cages*, the temperature should never remain below 48 deg. or 50 deg. Fahr.; for although my Weavers, many of the Waxbills, Love-birds, Combassou, and Blue-Mountain Lories seem indifferent to a dry atmosphere 10 degrees lower, yet some of the others appear to suffer more or less, and the first night of sudden keen frost last November killed a thoroughly healthy acclimatized Cordon Bleu, the thermometer registering 38 deg. Fahr. I use Clarke's Atmospheric Syphon Gas Stove, recommended by Mr. Fillmer, turned as low as it will burn. The objectionable

products of combustion seem to be condensed with the water which collects in the tray, and there is neither smell, noise, nor light from it. I think Mr. Abrahams also has a hygienic gas stove on similar lines.

REVIEW.

LIVING ANIMALS.*

This publication is probably well-known to our members, the first volume, dealing with mammals, being now complete, and the first number of the second volume just published. This latter commences the birds, and deals with the Ostriches and their allies, the Game birds and Pigeons.

This is an example of the development of the photographic art as applied to the illustration of books, the half-tone illustrations being in many cases exceedingly good, and highly artistic productions. It is, however, much to be regretted that amongst so many beautiful pictures there should be some positively bad—obviously photographs of wretchedly stuffed animals.

Part XIII. is the first that concerns us as aviculturists, and this contains some photographic reproductions that are of high merit; but here, too, there are one or two that would have been better omitted. It appears to us to be a mistake to bring the domestic breeds of poultry into prominence in a work of this kind, and if a photograph of one of the wild Jungle Fowl had been given, instead of five different pictures of domesticated varieties, this would in our opinion have increased the value of the book.

The scientific names of the species are not given, and this we consider a serious omission, even in a popular work of this kind.

One ought to be able to perfectly depend upon the letterpress of such a publication, but when we read that, with Pigeons, "the operation of feeding is performed by the parent thrusting its beak *into the mouth of its offspring (a)* and ejecting therein the secretion," one's faith is somewhat shaken. The work is wonderfully moderate in price, and we must not expect too much for our money; after all, most of the illustrations are so exceedingly good that they alone are very cheap at the price.

**Living Animals of the World; A Popular Natural History*—London, HUTCHINSON AND Co., Paternoster Row, 7d. per part.

(a) The italics are ours.—ED.

BIRD NOTES.

We heartily congratulate our esteemed Treasurer, Mr. W. H. St. Quintin, on having reared young of Cabot's Tragopan. The Tragopans, or Horned Pheasants, as most of our members are, doubtless, aware, are some of the most beautiful of the game-birds, and inhabit densely-wooded regions, at a high altitude, where it is almost impossible to study their habits in a wild state. Mr. St. Quintin's experience of some examples in captivity, as published in a letter to the *Field* of December 21st last, is therefore of great interest to aviculturists.

Representatives of three species, namely, the Satyr, or Crimson Tragopan (*Tragopan satyra*), Temminck's Tragopan (*T. temminckii*), and Cabot's Tragopan (*T. caboti*) inhabited a fox-proof enclosure of some five acres in extent, containing a lawn, shrubbery, and small meadow which was watered by a stream running through it.

Mr. St. Quintin was much struck by the arboreal habits of all three species, his specimens, although pinioned, spending most of their time amongst the branches of the shrubs and trees in the enclosure, descending only to feed, or dust themselves.

During the year 1900 the female *T. caboti* laid two eggs, of a buff colour flecked out with rusty red, and without gloss, in an old Wood-Pigeons' nest, about ten feet from the ground, which she slightly lined with green shoots from the tree; but as at that time she had no mate, the eggs were, of course, unfertile. The following year (1901) a fine adult male was running in the enclosure, but the first clutch of eggs, laid as before in an old Wood-Pigeons' nest (this time in a yew some 14 feet from the ground), proved unfertile, probably from having been touched by frost. A second clutch, laid in May in the same nest, was transferred to an incubator and two chicks were hatched, clothed in coarse, shaggy down, of a chestnut colour, and with the primaries developed to such an extent that on the first day they could flutter up and perch on the side of the little yard of the "foster-mother" to which they had been transferred.

The chicks were, with difficulty, induced to feed, at first on green caterpillars from a maple, and then on small garden worms chopped small, and ants' eggs. At the end of a week they ate fresh lettuce in addition to the other food. They did not take kindly to the "foster-mother," and, until they had learnt to return to the warm compartment, it was necessary to shut them in at dusk, and let them out for an early feed at 4 o'clock the next morning. They soon exhibited the same cleverness as the adults in climbing and perching, and could fly from branch to branch in their wire run, as neatly as any young passerine birds. Unfortunately one, the smaller of the two, was killed by a weasel; but the other, a male, was alive and well on December 3rd, and is so, we trust, at the present time.

The Christmas number of the New Zealand *Weekly Press* contains reproductions of some excellent photographs of nests of the Grey Duck,

Weka or Wood-hen, Tui, Pied Fantail, Grey Warbler, Kingfisher and Morepork or Common Owl.

The Grey Duck (*Anas superciliosa*) usually breeds in similar situations to those selected by our own Wild Duck, but, like that species, sometimes departs from its natural habit and builds its nest high up on a tree-stump, or in some dense creeper. One photo. illustrates the nest of this species in a "Ghia ghia," twelve feet from the ground; and another shows the photographer ascending a tree to a Grey Ducks' nest forty feet from the ground.

Two photos of the North-Island Woodhen's or Weka's nests are given, and an interesting account of the nesting of this Rail is supplied, from which we extract the following—

"After making a number of bogus nests, the bird forms the proper one in the roots of a big tree, some thick scrub, or in the middle of a niggerhead. . . . The Woodhen is a great thief in poultry yards, and displays much skill in sucking an egg without wasting a drop of either white or yolk. . . . But the Woodhen does not interfere with other Woodhens' eggs. It lays from three to five in a cosy structure nearly always built of cutty-grass."

The New Zealand Kingfisher (*Halcyon vagans*) is so closely allied to the Sacred Kingfisher (*H. sancta*) of Australia (see Vol. VI. page 117) that authorities differ as to whether the two are really distinct. A rotten tree-stump is shown in the photograph, containing a number of holes, similar to those made by Woodpeckers, and the following account is given—

"The birds, in making the nest, dig the wood away with their beaks, and form a tunnel two or three inches long. This tunnel enlarges as it enters the nest-chamber, to three or four inches in diameter, and on the floor the bird deposits her eggs among a few chips of rotten wood. From two to seven eggs are laid, which are pure white and almost round. The birds show great alarm when anyone approaches their nest, perching near, and crying until the intruders have gone away. The young ones are exceptionally ugly, even for young birds, having large beaks in proportion to their size, and very short legs."

CORRESPONDENCE.

VARIOUS NOTES AND QUERIES.

SIR,—Some years ago, Mr. Babb of the Crystal Palace informed me that he had heard that Blue Budgerigars sometimes resulted from crossing Yellows with Greens. Have any of our members ever tried the experiment?

A gentleman once told me that he had bred a pair of albino Yellow Budgerigars—very pale Yellows with red eyes. And that he had crossed the Mealy with the Common Rosella. And an instance of a white Vasa Parrot (I forget whether Greater or Lesser Vasa) also has been mentioned to me. Have any of our readers met with either of these experiences, and would the hybrid Rosellas be fertile?

Not only was there a Blackbird-Thrush hybrid at the Palace Show, but one was likewise exhibited at the Aquarium. I should be glad if any of our members who visited these Shows would kindly give us a description of the bird.

I have just read, in some Natural History Notes, that a flock of

twenty Crows had been seen, in company with Gulls, hawking about over the sea, and evidently looking for fish. Surely this is a somewhat unusual proceeding on their part!

CHARLES CUSHNY.

The following reply—in part—was sent to Mr. Cushny: perhaps some of our members will supplement it.

According to the late Mr. Joseph Abrahams, there have been but two instances recorded of the rearing of Blue Budgerigars; and the parents of both of these were Yellows. He had a painting of one or both of these Blue Budgerigars. More than once he told me about these two birds, but I forget the particulars; they were male and female.

Certainly the Rosella and the Mealy have been interbred, and the young reared; but I cannot say whether the young were fertile.

I suppose a White Vasa is not impossible, but I never heard of one.

Gulls consort with Rooks on land; and it is possible enough that, in hard weather, when food is scarce, the Rooks might return the visit and join the Gulls on the arrival, close in shore, of a shoal of herrings or other small fry; for the Rook will eat pretty nearly anything when hard pressed; and I have seen them feeding along the shore. But a "flock" of twenty "Crows," whether Hooded or Carrion, would be unusual in any circumstances. Nevertheless in some places the Hooded Crows are so common, especially in the autumn, when the members of each family would be together, that twenty individuals might be attracted together by some object of common interest (such as a shoal of fish); but they do not go about in flocks like Rooks, Choughs, and Jackdaws. The word "Crow," unfortunately, is very loosely used. In many parts, especially perhaps in Scotland, a Rook is always called a Crow; and, at any rate in some parts of the Lowlands, the only "Carrion Crow" recognized is the Hoodie, the true Carrion Crow not being distinguished from the Rook.

REGINALD PHILLIPPS.

COCKATIEL KILLING MICE.

SIR,—Did you ever know an instance of a Cockatiel killing and eating a mouse? I have had one of these birds some years. Of late mice have been rather troublesome, and have prowled about the cages at night after waste seed. A few weeks ago I found a mouse dead, and partly eaten, on the bottom of the Cockatiel's cage; yesterday I made a similar discovery. The head of the mouse was the portion attacked and eaten. The equanimity of the bird did not appear to have been disturbed on either occasion.

T. B. WHYTEHEAD.

THE AGE OF BIRDS IN CAPTIVITY.

SIR,—I have always been interested in testing the length of time that Waxbills will exist in a state of cage captivity. Have any of our members known a Zebra Waxbill to live longer than the one I have just lost? A hen (the last of my little friends) has just gone to her long home.

A pair came into my possession on 12th June, 1890. I give an extract from the letter of that date, sent by the gentleman from whom I bought

them. " . . . The birds were purchased by me last autumn, so they are acclimatized, having passed the winter in my possession. . . ."

As the hen had been with me $11\frac{1}{2}$ years, she must have been over 12 years old. At the time we removed here I was away from home, and the bird had been placed on a table close to a badly-fitting window. On my arrival I at once looked to the live stock, and found the poor little creature panting. On putting my hand to the lower sash, I found there was a dreadful draught. The aperture was at once blocked; but it was too late, for the mischief was done. Had it not been for this, I believe the bird would have still been alive and in good health, for she had never had any ailments.

W. T. CATLEUGH.

GOULDIAN FINCHES.

SIR,—I shall be obliged if you can tell me whether Gouldian Finches will do well if kept in small cages like Canaries, if so whether it would be necessary to keep them in pairs or if they would do singly?

I may mention that I have lost two out of three in a good-sized aviary-cage. I consider them most beautiful birds, and like listening to their "bubbling" song.

Thanking you in anticipation for any information you can give.

A. E. BOOTHROYD.

The following answer was sent to Mr. Boothroyd:

I have kept Gouldian Finches successfully in a medium-sized cage for three and four years, but I think they are happier and live longer in aviaries, where they can get more exercise. My caged Gouldians succumbed to sudden fits in the end, in which they died in apparently fine condition. I believe that I gave them too much *white* millet, which is fattening. One which lived many years in a cage had a defective beak, and so, I believe, could not overeat.

Those I have at present spend six or eight months of the year in an outdoor aviary, and the remainder in a large cage in a birdroom. They flourish and look in perfect health and happiness.

I by no means think it necessary to keep Gouldians in pairs.

O. E. CRESSWELL.

DIPPERS IN CAPTIVITY.

SIR,—If any of our members have been successful in keeping the Water Ouzel or Dipper in confinement, will they be kind enough to give us an account of their methods and treatment?

Our pool aviary—of which I have already sent a description, and in which I have kept Kingfishers without difficulty—seems an ideal place for the Dipper, but though I have had two consignments of strong fresh-caught birds, they do not live, and I do not care to experiment further until I can gather some information as to the food they require—for I expect this is the weak point. My birds were plentifully supplied with live earth-worms scattered in the water, and shredded raw meat both in the water and placed about the rock shelves, but they soon became weak and died.

The Little Grebe or Dabchick, too, I have found difficult to keep, though they generally live longer than the Dipper.

I expect the absence of green weed in the water may afford some explanation in the latter case, but hardly in the former.

CHAS. L. ROTHERA.

AVIARY AT FOREST LODGE, BINFIELD.

SIR,—I send you herewith an account of my aviary.—It is 33 feet long, 23 feet wide, and 9 feet high, divided down the centre by small wire netting. The wooden frame stands on a low brick wall about 2 feet high.

At the end of the aviary is a close-boarded room, fitted up with perches and nests of all descriptions, to which the birds always have access. This part is roofed with corrugated iron, and the remainder of the aviary with wire netting. One whole length of the aviary to the East is built up with brickwork. It gets plenty of sun, and is partially shaded in the summer by oak-trees.

One half of the aviary is reserved for different kinds of Parrakeets; and the other half for various other birds. Amongst the Parrakeets I may mention a King and Queen, Pennants, Crimson-wings and Red-rumps: the two latter species bred last season (1901), and I now have four fine young Crimson-wings and two young Red-rumps.

Amongst the birds in the other compartment I have Green-winged, and Australian Crested Pigeons, a Cardinal, Virginian Nightingale, and Japanese Robins; Grey, and White Java Sparrows; Java, Senegal, and Zebra Doves; Egyptian Crested Quails; Bohemian Waxwings, Zebra Finches, Ribbon Finches, and Red-billed Weavers.—the last three named bred last season (1901). All the birds are in good health, and they do not seem to feel the cold, although during the severe weather the water in their drinking fountain is frozen every morning.* S. E. MORSEHEAD.

BIRDS IN LIVING ROOMS.

SIR,—It is so seldom that we have papers on the keeping of foreign birds in "ordinary living rooms," and as all members are requested to write something for the Magazine, I thought my experience might prove of

* Lady Morsehead kindly sent us a photograph of the aviary above described, which we much regret being unable to reproduce, partly because the plates for the year have mostly been already arranged for, and also on account of the fact that the funds of the Society are limited, and the Committee cannot afford to give as many illustrations as they would like. We quite hope to be able ere long, as our membership increases, to publish at least one plate (either coloured or black and white) in each number of the Magazine: but illustrations are, unfortunately, expensive luxuries, and, with the Society's present income, we are hardly justified in doing so.

It is most desirable that the Magazine should be illustrated each month, as we believe the illustrations are highly appreciated by our members: we hope, therefore, that each member will do his or her best to increase the membership of the Society by making the Magazine better known to bird-lovers, and, by thus increasing the funds, enable the Committee to afford more illustrations.—ED.

interest to, at least, a few members. We are often told that to attempt to keep such and such a bird in a living room is simply to court disaster, and this, no doubt, deters many from making the attempt. There are, I am sure, many lovers of birds who, like myself, are either obliged to keep their birds in living rooms, or give up aviculture.

I have kept a few foreigners for many years now, and, considering how the temperature of a room differs during the night and day, must say that I have been fairly successful, having a few years ago won my share of prizes, which proves that my birds were not in bad condition. Of course, if one can have a birdroom or aviary so much the better.

My stock at present consists of a Grey Parrot (which is a most clever talker), pair Diamond Sparrows, Grey Singing Finch, Blue Robin, Shâma, DhyaI, and Virginian Nightingale. The cages of the three soft bills are cleaned out every morning and the others twice a week, having a plentiful supply of sea-sand. All these birds, with the exception of the DhyaI, have been in my possession three and four years, and all appear in perfect health. They are kept in good sized cages, and some are let out most days for a fly round, which I consider very beneficial. In the summer, on fine days, I hang outside as many as I can. The Virginian, which is kept in a room in which there is never a fire, may be heard singing on the coldest days, and I have frequently heard him before 3 a.m.

The Shâma and DhyaI are most interesting birds; both will fly from their cages and take mealworms from my hand; the latter will also perch on my finger, peck at it, and sing until I give it some dainty: it seems to know no fear. The soft-bills are fed twice daily on the usual mixtures, together with one or two mealworms and as many insects as I can collect. At night, about 10 p.m., all the cages are warmly covered up; and, although some aviculturists suggest that this is not necessary, I think that birds kept in a room in which there has been a fire during the day should have some protection at night.

I should be glad to hear of the experiences of other members who keep their birds under similar conditions.

H. SPEED.

GREY PARROTS.

SIR,—I beg to forward a record of a few examinations I have made of dead Grey Parrots, with a view to determining the sex from the measurement of the distance separating the two *rami* of the lower jaw.

DATE OF EXAMINATION.	WIDTH IN INCHES.	SEX.	APPROXIMATE AGE.
30th Nov., 1901	1 3-8ths	female	adult.
10th Dec. „	1 2-8ths	male	in 1st moult.
Ditto „	1 2-8ths	do.	adult.
13th do. „	1 5-16s	female	do.
16th do. „	1 1-8th	do.	young adult.
18th do. „	0 15-16ths	do.	immature.
21st do. „	1 2-8ths	do.	adult.
23rd do. „	1 1-8th	male	do.
28th do. „	1 1-8th	female	do.
31st do. „	1 1-16th	male	young adult.
10th Jan., 1902	1 5-16ths	female	adult, stated 4 years old.

It will be observed that the variation in measurement is not great, and is probably insufficient to constitute a differentiating sexual character. The female *rami*, however, are distinctly rounder than those of the male, and present a larger surface for muscular attachment, so that the female jaw must be stronger than the male; which is no more than might be expected, seeing that the female is the principal, if not indeed the sole, excavator of the nest-burrow.

W. T. GREENE.

A WILD BIRDS' "LARDER."

SIR,—A great deal of pleasure, at very little cost, can be had by making a wild birds' larder.

A large hawthorn tree grows close to our dining-room window, and on one of its lower branches we have hung food for the birds. Pieces of raw bacon-fat and suet can have a hole pierced through, and be tied to the branch with string. Also ordinary tallow candles, tied through the wick; and cocoa-nuts split in halves (a hole can easily be made through them with a red-hot skewer).

Large and Small Tits, and Cole Tits, come in large numbers, almost before I have finished tying up the food, and it is very pretty to watch them swinging from the cocoa-nuts, which are their special dainties. Anyone who has no tree near at hand to tie the "larder" to, could fasten it to a few nails in the wooden framework of the window, or could stretch a cord across it from side to side.

ROSIE ALDERSON.

OUTDOOR AVIARIES.

SIR,—I have only a small garden, but a very sunny one. A long border, which we used to devote to roses, I have now turned into an aviary which is the home of various foreign birds. I have a Mealy Rosella, a pair of Orange-breasted Parrakeets (*b*), some Zebra Finches, and about twenty Budgerigars, in it at present.

It is thirty-four feet long. One end is the sleeping compartment, which has a wooden door opening into the flight: I keep it shut in the cold weather. Two holes are cut in the wooden division, through which the birds can get in and out. The floor of all is thickly covered with sand, old mortar, and shell-grit. For bathing, I have a glazed earthenware basin, very shallow, with plug and waste-pipe. The exact sizes are—length 34 ft., height 14 ft., width 10 ft. I may say that it cost about £5 to put it up.

My favourite birds being Parrakeets, and, finding I could not keep as many as I wished in this aviary, I put up another, which cost me about £4. It is wider, but not quite so long as the first one. My birds seem very happy in it. I have reared young of Red Rosellas last year, besides numerous Cockatiels. My hen Pennant died just as I was hoping to have a nest.

I thought perhaps this little description might interest some of our members who are unable, for various reasons, to go in for such an elaborate and expensive structure as the one Miss Alderson described so vividly, and which, I confess, made me feel horribly envious.

M. B. LANCASTER.

(*b*) Cactus Conures, *Conurus cactorum*.—R. P.

LONG-TAILED PARTRIDGES.

SIR,—There is a species of Long-tailed Partridge common in the River Plate, and known there as the “Martinetta.” I think, though I am not sure, that it is the *Nothura major* (c), mentioned by Darwin in the “Voyage of the *Beagle*,” but I can find nothing more than a passing reference to it in such books as I have been able to consult, and should be much obliged if you could identify it for me, though I have given you very meagre details.

I am anxious to know whether the species would do well in our climate, and whether, given suitable conditions, it might succeed if turned down. As an aviary-bird it would, no doubt, be very easily kept.

Could you recommend any particular caging or treatment for this class of bird on board ship while being brought over? H. C. MARTIN.

[We cannot be sure to what species you refer, as the Long-tailed Partridges (*Dendrortyx*) are confined to Central America.

As to whether the birds you mention would do well in our climate—this can only be ascertained by experiment.

Whatever species these birds belong to, we should doubt their capabilities of withstanding the rigours of an English winter in the open, although they would do well enough in a properly-sheltered aviary and with little or no artificial heat.

There should be little difficulty in importing these birds. On the voyage they should be confined in a box-cage, say five or six feet long by three or four feet deep and fifteen inches high, wired only in the front, and with the top made of canvas or other similar material to prevent the birds injuring their heads.

The Partridges, if such they be, must not, of course, be overcrowded. We should recommend them being fed on canary-, white millet-, and dari-seed, and a little hemp.—ED.]

We would remind our members that some of the back numbers of the Magazine are getting very scarce; those, therefore, who wish to make up sets, should obtain them at once. We should also like to point out that the sale of back numbers helps to benefit the Society and enables the Committee to improve the Magazine.

The Editor regrets that the present number is somewhat late in its appearance. This delay has been caused by the colorists being unable to have the plate ready in time.

(c) The same as *N. maculosa*. The Spotted Tinamou is often represented at the Zoo, where it has bred.—R. P.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

DHYAL, male. (Mr. Hedley Speed) This bird had been ailing for several weeks, gradually becoming worse. Owner was of opinion that lungs were affected.

[Your opinion is correct : the cause of death was pneumonia of long standing.]

GREEN AVADAVAT. (Mr. A. E. Boothroyd). The temperature of the bird-room fell to 32° Far. one night, and the bird was found dead next day.

[Death resulted from acute inflammation of the liver, caused by the cold or some error in feeding. You do not state method of feeding. This species is quite hardy : I have a pair which have been out of doors all the winter and are now in splendid condition.]

BULLFINCH, female. (Miss E. Brampton). When found dead showed no sign of injury, and was very fat.

[Death was due to pressure on the brain from a depression of the skull, and a blood-clot extending over most of the upper surface of the brain. Direct injury could have been the only cause of this condition.]

CANARY-GOLDFINCH, male. (Mr. W. Osbaldeston). No particulars whatever given.

[Death was caused by cerebral apoplexy. In future kindly send particulars of feeding and symptoms, as the *post mortem* reports are intended for the benefit of the members generally as well as individually.]

LAVENDER FINCH, female. (Mr. R. Phillipps). Found dead.

[Death was due to hæmorrhage from the left lung, caused apparently by external violence, as the muscles between the ribs were ruptured, and a blood-clot extended to the subcutaneous tissues over the left side of the chest.]

ZEBRA FINCH, hen. (Mr. A. E. Boothroyd). Found dead.

[This bird died from inflammation of the oviduct, consequent on inability to lay a soft-shelled egg.]

ARTHUR GILL.

THE AVICULTURAL SOCIETY.

Balance Sheet for the Year 1900-1901.

RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
Balance from Last Year	Printing of Magazine—Fifteen Months	86 2 6
256 Subscriptions at 10/-	Stationery .. ..	.. ..
30 Entrance Fees at 2/6	Printing Plates (Mintern) ..	.. ..
3 Subscriptions in Advance	Colouring Plates (Porter) ..	.. ..
1 Part Subscription	Covers for Binding (Betts)	10 11 9
1 Subscription (arrear)	Reproducing Photograph ..	.. ..
Trade Advertisements (Betts)	Artist for Plate .. ..	.. ..
" " (Porter)	Carriage to Publisher .. ..	.. ..
Members' Advertisements	Postage—Editor .. ..	.. ..
Sale of Back Numbers, etc.	" Secretary .. ..	.. ..
Donations	" Publisher .. ..	.. ..
		" Magazines .. ..	.. ..
		Stamps to Executive, and Cheque Book	.. ..
		Straw Boards .. ..	.. ..
		Six Medals (Restall)	1 17 6
		Engraving Five Medals	2 2 0
		Casing 22 Vols., and Stamping ..	.. ..
		Purchase of Back Volume and Numbers	.. ..
		Removing Stock from late Publisher ..	.. ..
		Insurance of Stock	2 5 0
		Publisher—Issuing Magazines ..	.. ..
		" Commission on Sales .. ..	.. ..
		" " Trade Advertisements ..	.. ..
		Balance at Bank .. ..	.. ..
			£169 7 2

Signed, without prejudice,
PERCY W. FARMBOROUGH, Auditor.

Signed,
J. LEWIS BONHOTTE, Treasurer.

*I believe for 18 months. O.F.C.



GREATER SULPHUR-CRESTED COCKATOO.
Cacatua galerita.

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THE GREATER SULPHUR-CRESTED COCKATOO.

(Cacatua galerita).

By the Hon. and Rev. Canon DUTTON.

With Notes by Sir C. LAWES.

This bird is one of the commonest parrots in the market, and can therefore be bought at times at as low a price as 25/- the pair. Its hardiness enables it to be imported in great numbers; but there is not the traffic in these birds that there is in Grey Parrots. And this is because, in spite of its snowy beauty, it is not nearly so clever a bird (*a*).

I have had no great experience of them myself, because they are too noisy and mischievous for pets for the house: the most attractive that I have come across were noisy (*b*). I have not myself seen or known of one that was a good talker. And I have been told that they are uncertain in temper (*c*); but I rather incline to think this a libel, and that they are always affectionate with those they are fond of. They are better suited for aviaries than for cages. Of all parrots they are the least sensitive to cold. In fact Mr. Buxton, in his interesting paper on the parrots he kept at Northrepps, found this insensibility a positive disadvantage. The Grey Parrots would come in for shelter in severe weather, he tells us, and the Cockatoos would not and consequently got their toes frost bitten.

Perhaps the best commentary on the suitability of the Lemon-crested Cockatoo as a cage-pet would be a visit to the room downstairs in the Crystal Palace devoted to parrots. The

(*a*). At talking certainly, but all round much cleverer.

(*b*). All this noisiness is from stupid handling—easily *knocked* quiet.

(*c*). Bad handling! All Australian birds have nice dispositions. The males are apt to bite, but not from spite, and a quick blow with the *other* hand soon teaches them. The Small Island Cockatoos are very spiteful.

parrots are almost all Sulphur-crested Cockatoos "presented" by their owners!

The nicest I know I have promised to have when its owner dies, and I am always in terror of hearing of her death. It is intelligent, affectionate, amusing, miserable in a cage, destructive out, and noisy when not being played with.

Russ seems unaware of any distinction between the sexes, but I believe the eye test to be good, and that the males have black eyes and the hens brown (*d*).

SOUTH AFRICAN CAGE-BIRDS.

By A. G. BUTLER, Ph.D.

(Continued from page 64).

As the Barbets have, of late years, become somewhat popular as cage-birds, it would perhaps be well to mention that two of these pretty little fellows should be obtainable,—the Black-collared Barbet (*Pogonorchynchus torquatus*), which is common near East London, Graham's Town, Eland's Port, Pinetown, and Rustenburg; also the Pied Barbet (*P. leucomelas*) which is a wide-ranging and not uncommon, though somewhat local, species.

Of the South African Parrots the Rosy-faced Love-bird (*Agapornis roseicollis*) is plentiful and gregarious on the Limpopo; Meyer's Parrot (*Psittacus meyeri*) occurs commonly in the same country and in Matabeleland; Rüppell's Parrot (*P. rueppelli*) is common in Damaraland.

One Fruit-Pigeon might perhaps be secured—Delalande's Green Pigeon (*Treron delalandii*) which is said to be not uncommon at East London and has been shot in various other localities. The S. African Speckled Pigeon (*Columba phæonota*), known as the Bosch-Duif or Wilde-Duif, is common everywhere, and could be obtained with ease; the Spotted Pigeon (*C. arquatrix*) which has been seen in our Zoological Gardens visits the Knysna towards the end of the year in large flocks and extends to the Cape peninsula to feed on the berries of the wild olive.

(*d*) This is the case with all Cockatoos without exception—males black eyes, females coloured more or less.

The most mischievous and amusing bird I ever knew was a large hen Sulphur-crest.

The Rufous-necked Wood-Dove (*Haplopelia larvata*) is occasionally imported; it is the "Lamoen Duif" of the colonists and is common near Cape Town, at the Knysna, in Natal, and in the Lydenburg district of the Transvaal. The well-known Half-collared Turtle (*Turtur semitorquatus*) is common at East London and has been met with in other parts of S. Africa; the Cape Turtle-dove (*T. capicola*) is plentiful near Port Elizabeth, throughout Natal, the Transvaal, and elsewhere.

The widely distributed Cambayan or Senegal Turtle (*Turtur senegalensis*) is reported as common on the Fish River, in the mimosa bush along the Tugela, and in the Mariqua district of the Transvaal.

The beautiful Emerald Dove (*Chalcopelia afra*) is abundant throughout Kaffirland, is common about Durban and Pinetown, and has been recorded from other parts of S. Africa; and the charming Tambourine Pigeon (*Tympanistria tympanistria*) is very plentiful in bushy country on the coast line about Durban in Natal.

The familiar Cape-Dove is to be met with all over the colony; but it is to be regretted that hen birds are so much more rarely imported than cocks.

Among the Game birds there are various Guinea-fowls which might be interesting for large aviaries or poultry-runs, but which one can hardly reckon among cage-birds. The same may perhaps be said of the Francolin, some of which are easily captured, become quickly tame and are said to make excellent pets. The Harlequin Quail (*Coturnix delegorguei*) occurs near Grahamstown and in Natal, and a few have been shot at various times at King William's Town, but it does not seem to be very common.

The Hemipodes, which make most interesting cage and aviary pets, are represented in S. Africa by two species,—the South African Hemipode (*Turnix hottentotta*) found sparingly throughout the colony, and the Kurrichane Hemipode (*T. lepurana*) which is far more local, but is said to be not uncommon in Great Namaqualand during the rainy-season.

Doubtless there are many other S. African birds suitable for Zoological Gardens or for extensive private aviaries; but, in the present account, I have thought it better to limit myself to those which may fairly be regarded as cage-birds.

NOTES ON THE MALABAR AND GOLD-FRONTED CHLOROPSIS.

By FRANK FINN, B.A., F.Z.S.

Our Secretary has asked me to contribute an article on these species, so I must perforce try to say something about them, albeit the information I can give is but scanty. Indeed, I cannot recall ever having seen the Malabar Chloropsis (*Chloropsis malabarica*) alive, and the Indian Museum contains but few specimens of this bird.

The commonest species of this beautiful genus exported from India is undoubtedly the Gold-fronted (*C. aurifrons*), which is well known as a cage-bird here under the name of *Harewa* (pronounced Hurrywah). This name should, I think, be used for the group, as they are certainly very distinct from all other Babblers and Bulbuls, although claiming with justice a place in one or other of these groups; I think, myself, that they unite the two. The Gold-fronted Harewa, then, is a bird whose general hue is the brightest grass-green, relieved by a patch of shining turquoise blue on the "shoulder" of each wing, displayed when the bird is excited. The sides of the face and the throat and fore-neck are black, and *the centre of the throat, right up to the beak, rich bright blue*. The forehead is fiery orange, and a yellow zone borders the black throat below, extending more or less faintly up the sides thereof. The hen is said to be less brilliant in colour, but all the birds I have seen look much alike. Her month is said to be brown, while that of the cock is bluish grey, and this may afford a means of distinction. Young birds have no black or gold on the head and only a moustache of blue. Many are brought into Calcutta at this stage.

The Malabar Harewa resembles the Gold-fronted exactly in size and general colour, but *the black on the throat runs up right to the base of the beak*, leaving only two stripes of blue, one on each side, like moustaches. There is no zone of yellow bordering the black throat in those I have seen, though some are said to show it. The hen is said hardly to differ from the cock, and the young to be green all over.

It will be seen from this that there is about the same difference between these two species as there is between a "Cheveril" and an ordinary Goldfinch; and it is not to be wondered at that they have got mixed up in the Zoological Society's list, which gives the Malabar Chloropsis as *C. aurifrons*.

For the benefit of those who do not know these lovely birds, I may mention that the Harewas are very easy to keep, devouring soft fruit and insects with equal avidity, and lapping up sweetened milk-sop with great gusto. They are very active on their feet, and will keep in good order in quite a small cage. But it is a shame to shut them up closely, as they are also very strong on the wing, and will make good use of space for flight. They can hover well, and when going far travel in bounds or undulations like a Wagtail; at any rate this is the method of flight of the Gold-fronted species.

In disposition they are very uncertain; some are perfect fiends, and will not let other birds alone, while others are quiet and harmless, although not given to cuddling and tickling strangers. A pair, however, will keep close together. On the ground, to which they do not very readily descend, they move by awkward hops, and do not look at all well.

Their natural habit is to search the leaves of trees for insects, and hence they have a queer trick of peering sideways at anything that attracts their attention. They will search under other birds' tails as if they were leaves! Most of those I have seen have been fascinatingly tame, and they are very much liked by everyone who has kept them.

I have seen one or two wild here in Calcutta, but I expect they were "escapes." A very nice bird I had (*C. aurifrons*) got away twice, the last time for good, and no doubt many others do so. This specimen would pull my hair if I put my head near enough to the cage, and when I went inside to catch another bird it would be much interested in the net.

The only other species I have seen much of is the splendid Orange-bellied or Blue-winged Harewa (*C. hardwickii*), and this is rare compared with the Gold-fronted. It is a stouter, stronger bird, and is feared by the slighter species when they meet in a wild state.

I may mention finally a curious fact that a Gold-fronted Harewa, belonging to a friend of mine, having had some feathers pulled out by a rat, reproduced these of a greenish blue; thus shewing that variation of tint in this bird indicates a failure of constitution affecting the colour of the feathers.

[It has become such a persistent habit of bird-keepers in this country to refer to the Gold-fronted Harewa as a "Malabar" Green-Bulbul, a "Malabar" Fruitsucker, and the like, that I invited Mr. Frank Finn to give us an authoritative statement on the point. I hope our readers will now see clearly that they are in error when they apply the word "Malabar"

to the now familiar *C. aurifrons*, the Malabar bird (*C. malabarica*) being a different species (it is treated as specifically distinct in the Museum Catalogue) and rarely imported. The Zoological Society's List is mainly responsible for originating and disseminating this error. I thank Mr. Finn for so promptly responding to my application for assistance.—R.P.]

THE BLACK BULBUL.

By the Rev. C. D. FARRAR.

If ever a rare bird comes into the market, you should advise one of your friends to buy it; much on the same principle that all wise men are bankers—because it is easier to play with other people's money than with your own. Failing a victim, there is only one other course open, you must sacrifice yourself on the altar of avicultural duty. I had to adopt the latter course when some months since I was offered some Black Bulbuls.

The Black Bulbul would have been quite sympathetic with the Irishman who was fined £5 in some English town for fighting and who exclaimed, on hearing the decision of the Bench, "Begorra, but wait till I get yez in Limerick where fighting is chape!" I will back him for his fighting weight for very long odds against any bird I know, bar a Shâma or a Dhîyâl. In that case, perhaps, he will make him haste to escape, and will seek him a place to flee unto until the tyranny be overpast. As a sly and crafty slayer of small and inoffensive birds, he could give points to the 'Thugs. When I bought my Black Bulbuls all this was hidden from me. I often think a good motto for us aviculturists would be "*Spero infestis*," which I will translate for the sake of the unlearned "*Hope on in spite of bad luck*."

Of the iniquities of these Black Bulbuls I could write "*currente calamo*," but I dare not do it, for I feel like that fat old gentleman in India, who remained in the plains because he was sensible that in the hills he might begin to roll and go on rolling until he rolled out of the world altogether. I have so much material that I dare not cut the wire which holds the bale together. One or two straws, however, may be pulled out without disturbing the heap. One morning I found a very rare African Sparrow, whose name I cannot discover, dead on the floor: a few mornings later a little Bibbfinch hen scrambled across the floor with a broken wing. I wondered at first what had caused the damage. The Black Bulbuls were the biggest occupants of the aviary, and next to them came a pair of American Song Sparrows. I wondered which were the culprits.

I found out quite by accident. I caught the Song Sparrows and put them in an outdoor aviary. Then I netted the Bulbuls. When I took out the first one I have seldom received a more hearty grasp of the beak than he gave me, and I said to myself "Now I can understand how that Bibfinch felt when you got hold of her wing!" I promptly caged the pair of sinners, and put them together into a fair sized aviary where they remained all the summer.

I will try to describe their appearance. I think myself that Black is a misnomer. Did you ever hear the story of the two young ladies who were discussing the colour of the devil, one maintaining that he was black and the other something else? At length one of them closed the conversation, which was getting a bit heated, with the crushing remark, "I think *you will find* that I am right, dear." And when I have given my description, I venture to think that readers of this Magazine will think that the Black Bulbul is not so black as he is painted (*e*).

The head, nape, and back of the neck, the chin, throat and breast are black; the breast beautifully laced with silvery white like a Birchen bantam, the ears rich glossy brown, wings blackish brown, shoulders laced with silvery white, vent rich crimson, bill and legs black, iris brown.

I fully intended to breed Black Bulbuls next year, and make somebody perfectly green with envy; but alas for our good intentions!

There is always something peculiarly soothing in village news. This is a village. We all love to hear which man has grown the biggest lettuce, or the most alluring cabbage; which children have let the family pig into their neighbour's garden, and with what results. It is the best possible news—always supposing that the said devastated garden is not ours! In the same way, aviculturists always like to hear of disasters—to other people. What follows, therefore, will be of a cheering nature to many.

The atmosphere of Micklefield—summer and winter—is simply that of a roofed-in railway station open at both ends. It is not conducive to longevity in birds, though perhaps it may be

(*e*). Here, in another sense, I quite agree with Mr. Farrar. Years ago I had a pair of Black Bulbuls flying loose in the aviary, but they never did any mischief. Nevertheless, as a race, and I have kept several species and still have four—six individuals. I have found the Bulbuls exceptionally spiteful, and very much more so than the much maligned Weavers, of which I have had many for long periods, and still have about a dozen. A little Madagascar is the only spiteful one, some of the others being right down jolly good fellows.—R.P.

called "bracing" by the faculty. At any rate it was too bracing for Bengal Bulbuls, for one morning I found them both dead on the floor. Marius amid the ruins of Carthage could not have worn a more tragic air than I did that morning.

There are some few aviculturists that have the gift of sympathy, and to them I appeal with confidence.

REARING RINGED-PLOVERS FROM THE EGG.

By W. G. PERCIVAL.

On May 11th, last year, I took a clutch of four eggs of the Ringed Plover, *Ægialitis hiaticola* (Linn.), and, while drilling one in order to remove its contents, I found that the young bird was on the point of being hatched. I at once put the remaining three eggs into an incubator, in company with a number of fowls' eggs. Two of them were chipped on the following morning, and the young birds emerged about six o'clock the same evening. The third egg produced a weakly bird the next evening, but this one only lived until the 28th. As soon as the young were hatched, I transferred them to an incubator by themselves. They were not able to stand up on their feet for some hours, and I noticed that they took some time to get thoroughly dry.

Food was the next question, so I took my water-net and collected a lot of weed from a pond which was close at hand.

The next morning I placed the chicks in an open box in the conservatory, and put beside them some of the pond-weed, which contained a number of minute insects. After a few minutes one of them began to peck about a little, but they would not feed properly. They soon got cold, and had to be replaced in the incubator, where they remained for the rest of the day.

On the 14th I placed them in a large glass case (about 5ft. by 18in.) on which the sun was shining, having previously covered the floor with sand. They at once began to run about in a very lively manner, and to pick up insects from the weed which I offered them; but directly a cloud came over the sun they became dull, and soon lay down and appeared to be dying, so I had to return them at once to the incubator, where the warmth soon revived them.

After this they were put out for a short time every day, while the sun was shining, and I sometimes allowed them to run

loose on the lawn, where they caused me much amusement as they ran about catching insects, in the pursuit of which they frequently overbalanced themselves. When I attempted to catch them they would not always run away, but frequently crouched close to the ground, following, no doubt, their natural instinct, by which they often escape detection, when young, by hiding among the pebbles on the sea shore.

For the first two weeks they were fed entirely on water insects, such as dragon-fly larvæ and gnat grubs, etc., but then I thought I would give them a change of food, so I dug up some ants' nests and put them in the case where they were kept. They seemed to like this, and eagerly picked out the cocoons; they also showed a liking for gentles, and after a time would take small mealworms. Now and then, when very hungry, they would eat a little hard-boiled egg and small pieces of meat, but very seldom, and only when nothing else was left. When hungry they constantly uttered a sharp shrill cry, and would always answer me if I whistled to them. After they were able to fly, I often let them loose in a large and lofty billiard room which was not in use, and they would fly about for some time, appearing to enjoy their comparative liberty.

They were very fond of bathing, and when their dish of water was placed in their case, they would rush at it and jump and make a great fuss, often remaining in the water for some time, then they would come out almost drowned; but as soon as they got a bit dry in they would go again. But they were particular that the water should be clean.

I regret now that I only made one or two notes as to the growth of their feathers. On June 1st, the twentieth day after they had been hatched, the primary feathers were half-an-inch long, and the body feathers were just beginning to show under the down.

I always put them into the incubator at night until they were about two months old, and then I kept them in a closed cage in a warm room. During the day they were kept in a covered-in wire run. When they were about twelve weeks old, a tragedy occurred which caused me to lose them both. A Magpie managed to seize and kill one, through the wire: and the other chick died soon after, either from fright or from solitude.

I do not remember to have heard of anyone who has previously reared this interesting species from the egg; but if any members of the Avicultural Society have done so, it might

be instructive to compare their notes with those which I was able to make on my birds.

I also reared a Moorhen in the same way.

THE CRYSTAL PALACE BIRD SHOW.

This exhibition was certainly not up to the average of Crystal Palace Shows, and there were very few specimens of exceptional rarity or interest.

In the British Section we were much struck by the Cinnamon Thrush which obtained the first prize in the class for "Pied, Albino, or rare feathered specimens."

Mr. Maxwell's Golden-crested Wren, which was well shown and rightly awarded a first prize in the "Resident" class, testifies to that gentleman's great skill in keeping the more delicate British insectivorous species. It was in excellent form and one of the most charming birds in the Show. The same exhibitor sent a Lesser-spotted Woodpecker, a species not often placed on the show-bench. A very nice Long-tailed Titmouse was also here, as well as a Green, and three Greater-spotted Woodpeckers and several other interesting specimens.

In the class for Migratory Birds, the first prize was awarded to a very fine Blue-headed Wagtail belonging to Mr. Maxwell. A good Black Redstart was also well worth inspection.

In the Foreign Class, amongst the Parrakeets the most noteworthy exhibit was the female Golden-shoulder belonging to Mr. L. W. Hawkins, and now so well-known at the leading bird-shows : it was awarded a second prize. A good pair of Many-colours, owned by the same exhibitor, taking first. A moderate Blue-bonnet, some Kings and Crimson Wings, a Port Lincoln and several commoner species were also shown.

The Dove Class was better filled than usual, and contained some uncommon birds. A beautiful pair of Wonga-Wonga Pigeons, belonging to Mr. Housden, obtained the first prize, and this gentleman also sent a fine pair of Nicobars. The rarest birds in this class were, however, the White-crowned Pigeons (*Columba leucocephala*) and White-winged Doves (*Melopelia leucoptera*) exhibited by Mr. W. E. Parker, but these were not in show form, and the male White-crowned Pigeon had lost half its right wing. An exhibit catalogued as "Madagascar Doves" proved to be a pair of Senegal Turtles with an odd

specimen of *Zenaida aurita* with them. It is a pity exhibitors do not take more trouble to name their entries correctly. In the class for Waxbills, Grassfinches, etc., the most noteworthy exhibits were the Wiener's Waxbills (*Pytelia afra*) and Rufous-tailed Finches (*Bathilda ruficauda*) sent by Mr. L. W. Hawkins. There was also here a good pair of Pectoral-finches (*Munia pectoralis*).

The class for "Grosbeaks, true Finches and Buntings," was judged somewhat peculiarly; the first prize being awarded to a couple of cock Black-headed Buntings (*Emberiza melanocephala*). We should have expected the author of a work on British birds to be able to distinguish the sex of a bird which is included in the British list, and in which the sexes differ considerably in plumage. The only bird of any rarity in the class was a very nice Cuba Finch.

Amongst the "Tanagers, Sugar-birds, Honey-eaters, Zosterops, and Bulbuls," were some beautiful birds of great rarity, but the judging was most remarkable. The first prize was awarded to a pair of common Chinese Zosterops and the second to a Superb Tanager, neither of which was worth a tithe of the value of either Mr. Swan's fine White-capped Tanager, or Mr. Townsend's so-called Archbishop Tanager, or his Blue Tanager, all of which were of great rarity. The latter exhibitor sent an Indian Sun-bird, which most unfortunately got so besmeared with honey, upon which it was fed, that it died before the Show opened. It was impossible to discern the colours when we inspected the body, but it was evidently an exceedingly rare bird, and probably the first of its kind ever seen at a show in this country.

A very fine Malabar Green Bulbul was singing splendidly in this class, and there was a good Warty-faced Honey-eater.

The Mixed Class, for all species not included elsewhere, contained perhaps the finest collection of rarities in the Show. The first prize winner was a Cinereous Struthidea, rare, but not in show form (*f*). A fine Masked Wood Swallow (*Artamus personatus*) was awarded second (both of these belonged to Mr. Glasscoe). A White-eyebrowed Wood Swallow (*A. superciliosus*), equally good and perhaps slightly rarer than the Masked, was entirely passed over by the Judge, as was also a good Barbet (*g*). A Shâma

(*f*). See Vol. VII., pp. 75 and 146.—R.P.

(*g*). We visited the Show on the Friday, the opening day, and the White-eyebrowed Wood-Swallow certainly had no card then; Dr. Butler informs us however that on the Monday there appeared an alteration in the awards, the White-eyebrowed Wood-Swallow being labelled third, and the Shâma passed over.—E.D.

obtained third, and a Sacred Kingfisher, which was not in Show form, fourth prize. A Red-headed Starling, a very rare and handsome bird, was only given a V.H.C. card, and a Purple-headed Glossy Starling was Commended. There was also here a good Brazilian Hangnest.

REVIEW.

THE *EMU*.*

We are favoured with a copy of the second part of Vol. I. of this quarterly publication,—the official organ of the newly-formed Australasian Ornithologists' Union, which has been formed on the lines of the B.O.U., and promises to accomplish much in the working out of the ornithology of a region rich in feathered creatures.

Our space will only permit of a very brief notice of the *Emu* which, there is little doubt, will prove an exceedingly useful journal to all who study Australasian birds, whether in their native wilds, or here at home in our aviaries. It is edited by Mr. A. J. Campbell (whose standard work on "Nests and Eggs of Australian Birds" is known to many of our members) and Mr. H. Kendall.

The present part contains accounts of the meetings held at the inaugural session, during which lectures were delivered and excursions made into the surrounding country in search of birds. Papers are published on the following subjects—*Porphyrio melanonotus* in New Zealand; North Western Notes; Protective Colouration of Australian Birds and their Nests; Corresponding and Observatory Stations; Notes on certain *Maluri*, with a description of a new species; Description of a new Bristle Bird; Should the Mutton-Birds be protected? etc.

Three good photo-tint illustrations are given of nests.

Many of our members are especially interested in Australasian birds, and will hail with delight the advent of the *Emu*, which must, without doubt, rank high amongst ornithological publications.

* The *Emu*, the official organ of the Australasian Ornithologists' Union. Melbourne: WALKER, MAY, & Co., 25, Mackillop Street. Quarterly, price 3/4.

BIRD NOTES.

Nine specimens of the Pheasant-tailed Jacana (*Hydrophasianus chirurgus*) were recently presented by Mr. Frank Finn to the Zoological Society, and arrived at the gardens on January 11th last. This is the first time this curious species has been represented in the Society's collection. It is unfortunate that they should have arrived at a season in which climatic conditions are against their being placed amongst more or less natural surroundings, as they might have been in the summer. The dry sand floor of the inner part of the Western Aviary is a poor substitute for their home amongst aquatic vegetation, and we were much disappointed to find, on visiting the gardens on February 10th, that only five of the nine then survived, and these did not appear to be doing well.

The Jacanas (*Parridæ*) form a link between the Snipes and the Plovers, while they differ from all other birds in possessing extraordinarily elongated toes, which enable them to walk with ease on floating leaves of aquatic plants. The Pheasant-tailed Jacana, or Water Pheasant, is the sole representative of the genus *Hydrophasianus*, and the largest member of the family. The specimens now in the Zoological Gardens are in winter plumage, the breeding plumage being assumed in May or June, at which time the short tail-feathers are replaced by others of about a foot in length.

The Water Pheasant is comparatively common throughout India and Ceylon, and is found wherever there is water in which aquatic vegetation is abundant; feeding upon insects and grain. The nest, composed of weeds and rushes, is placed in some thick grass-clump in the midst of a pond or swamp. According to Hume, "in shape the eggs of this species are so peculiar that when once seen they can never be mistaken. They may be described as pegtops without pegs—cones slightly obtuse at the point, based upon somewhat flattened hemispheres. . . . When quite fresh they are of a rich deep bronze colour." The clutch usually consists of four eggs.

Mr. Frohawk has contributed a very life-like drawing of Tengmalm's Owl (*Nyctala tengmalmi*) to the *Field* of Feb. 1st, with an account of the capture of two of these rare wanderers in an exhausted state on the East Coast, after an easterly gale. Both of these Owls appeared to be perfectly tame, and readily took to a life of captivity. Two more have since been recorded in England—one shot in Northamptonshire, and the other near Henley. This brings the number of cases in which this species has been recorded in the British Islands to about thirty-three.

Ostrich farms are, we learn, being established at several places on the Riviera, where the climate seems favourable to the industry. The demand for good plumes is said to be ever increasing, and, at the present time, greater than the supply; so that there is every prospect of the undertaking, which appears to be entirely a British concern, proving very remunerative.

In the *Field* of Feb. 8th, Mr. J. H. Gurney records the occurrence of Allen's Gullinule (*Porphyriola alleni*) on Dec. 31st last at Hopton, near Yarmouth. There is no previous record of this African species having been taken in Great Britain.

A pair of Red-backed Parrakeets (*Psephotus hæmatonotus*) have been for months frequenting the vacant pieces of ground between the Australian Wharf and the Victoria Dock. Possibly they roost in the roof of some adjacent buildings, probably the Gasworks.—(From the *Emu*, Jan., 1902).

CORRESPONDENCE.

COCKATOOS, CRANES, AND RAILS.

SIR,—I have a Cockatoo, the Great Salmon-crested Moluccan, which is very fond of fir cones. I am in the habit of giving him two or three freshly gathered ones daily, which he strips, and eats the seeds. Will they do him any harm?

I should be much obliged, too, if you could tell me the cause of my Demoiselle Crane having plucked out five of her wing feathers (one of which I enclose for you to see) during the last few months. She is fed almost entirely on maize, as I find she eats only very little wheat, and will not touch barley meal. She seems in perfect health and spirits; but, each time she has pulled out a feather, the place has bled considerably.

Then I have just bought a South American Rail, and am anxious to know what kind it is. It has a greenish yellow beak, blue grey breast, red legs and large feet, and pretty golden brown wings. I keep it *with* my Golden and Amherst Pheasants, and feed it with the same mixed corn and oats. Is this right?

OCTAVIA GREGORY.

The following reply was sent to Mrs. Gregory.

One or two fir cones a day will probably not do your Cockatoo any harm—but watch for any bad symptoms, such as feather-eating, or the half closing of the eyes. The employment is excellent for it.

The condition of the Crane's feather which you sent me points to a heated state of the blood and consequent irritation of the skin. This indicates something wrong in the feeding. So much maize can hardly be right.

Lessen the supply of maize, and give bread, biscuit (hard biscuit may be soaked), peas, worms, slugs, snails, mice, frogs, newts, scraps from the table, and also vegetable food of some kind. I do not know how you keep your Crane, but it requires vegetable matter if it has not a good run. *Plant* some wheat thickly—and the growing wheat will suit it well.

I take your Rail to be the Ypacaha Rail, *Aramides ypacaha*, from Southern Brazil and Argentina.

It should, if possible, be supplied with insects, or something of that nature, in addition to the corn. Or with some yolk of egg (dried flakes, or hard boiled), if nothing else comes handy. Some tame Rails become very fond of bread and milk.

REGINALD PHILLIPPS.

DISEASED BEAKS.

SIR,—I shall be very much obliged if you can tell me what I can do for some Gouldian Finches, who are suffering from a white cheesy growth on their bills; it seems to be infectious, at least it has spread from one bird to

another, though not to any but Gouldians. When it is scraped off with a penknife the beak seems to have perished, the horn being quite soft. The birds appear to be in perfect health and plumage. B. SHEPHERD.

The following reply was sent to Miss Shepherd.

I cannot say what is the cause of the disease, unless, indeed, the cage in which you keep the birds has brass wires, which might poison the beak when corroded by verdigris; but after scraping off the cheesy growth, I should have powdered the beaks with an antiseptic—boracic acid or something of that kind. A. G. BUTLER.

PARTIAL ALBINISM IN BLACKBIRD.

SIR,—It may interest some of our members to hear that there is a Blackbird here in the village in East Kent, where I am visiting, which has a white patch on one side of the head. The patch of white feathers extends over the eye and ear and is very conspicuous. The bird is otherwise pure black.

This Blackbird has been a regular visitor to the lawn outside the window every winter for the last five years. He is very tame, and comes with a crowd of other birds to be fed whenever the weather is cold or snowy. We have seen a good deal of him this last week, and I can answer for his having an excellent appetite. It struck me as curious that the white patch should not disappear when the moult takes place. Can any of our scientific members tell me the reason why it does not do so?

EMILY E. WEST.

[With the exception of the House-Sparrow, the Blackbird is, probably, the most subject to *albinism* or partial *albinism* of any British bird; and, in most cases at least, a bird so affected never attains the normal hue.—F.D.] (*h*),

THE SEXING OF BIRDS.

SIR,—I was much pleased to see that Dr. Greene had published some extra facts bearing upon the important point of the sexing of Parrots, in the last number of our Magazine.

I find that, in my little book, "Foreign Bird-Keeping," I have not mentioned all the sexual differences in the Red-eared Bulbul. I will, therefore, do so now. The male is longer and stouter than the female, the bill shorter, not abruptly tapering from beyond the nostrils, the culmen rather more arched, the lateral depth much greater, the crown wider, feathers of the crown and crest more glossy and jetty black, the back of a deeper more smoky brown, tail rather blacker, under surface more purely white, less sordid, the posterior flank feathers more prominently washed with sandy brownish, vent and under tail-coverts of a brighter and more pronounced rose-red; wings distinctly longer.

(*h*). Some friends of ours, in Surrey, have had a Blackbird, about one-half white, living in their grounds for several years. It is a frequent visitor to the lawns, and is very conspicuous, the more so as the wings are white. It is carefully preserved, as, indeed, are all the birds.—R.P.

Albinism tends to increase with age, instead of decreasing; I have proved this with the Blackbird, Chaffinch, and Cordon Bleu.—A.G.B.

I have long wished to discover some distinctive character between the sexes of the Grey Singing-finch, and some time since, I determined to save the skins of any which I might lose. During the last month first a female, and then a favourite male (which I have had in full song for three years) died. A comparison of the two skins shows that the male is decidedly larger, nearly half-an-inch longer in the skin, but this may be partly due to stretching; the skull is unquestionably broader, the rump is whiter, and the abdomen, excepting at the sides, is pure white, whereas in the hen it is washed with brownish grey like the breast, but without the darker streaks. I should be grateful to any aviculturist who has an opportunity of doing so, if he or she would test these characters by any living or dead Grey Singing-finches in his or her possession, and let me know through the pages of the Magazine whether they prove to be constant, as it is most desirable to know definitely how to sex this sweet little songster (*i*). A. G. BUTLER.

THE SEXING OF GREY SINGING-FINCHES.

SIR,—Referring to Dr. Butler's letter above, several years ago I bought four of these birds, two true pairs as it transpired, as each couple reared several young. One died the other day, apparently from old age, but the other three are still flying about the aviary.

I have frequently tried to sex these birds; of course one can often see, from its movements, that a particular bird is a male or a female; and one I can usually sex by its wing (Vol. VII., p. 57); but, from the plumage alone, I have not often been successful. At the commencement of the breeding season, as with the Green Singing-finch (at least it seems to be at this season), the plumage of the male is brighter, but it does not last throughout the year. The clear white referred to by Dr. Butler, at any rate in my aviary, is not maintained. Neither can I always detect any difference in size, though I think sometimes that the male seems to be a trifle larger than his mate. REGINALD PHILLIPPS.

CORDON BLEUS, ETC.

SIR,—As I had a hen Cordon Bleu die of apoplexy in my birdroom a week ago, I should be glad if you would advise me as to the giving of soft food. I am wondering if I have been feeding my birds too well. I give, of course, a plentiful supply of seed—white millet, canary, Indian and spray millet; and in addition I have every day been giving a dish of Abrahams' mixture and grated bread or biscuit, with some preserved yolk and sometimes ants' eggs. This mixture is greedily eaten by my birds, a mixed company of Waxbills, Bengalis, a pair of Pileated Finches, and Silverbills, etc.

This is the second winter I have had the Cordon Bleus; and I was admiring the beauty of their plumage only the day before the hen died. I found her to my surprise and sorrow on the floor dying on Sunday week. Mr. Gill certified that apoplexy was the cause of death. E. E. WEST.

The following reply was sent to Miss West:

You feed your birds much too sumptuously. These little finches do very much better if fed on seed alone (do not give too much white millet),

(*i*) Two males which I lost some years ago agree in all respects with the one which I recently lost.—A. G. B.

with some green food in the summer. In the winter I never give raw green food to the little birds, but plain boiled cabbage. When nesting, a little plain biscuit and preserved yolk of egg may be supplied; and at all times a taste of soft food may be given to the Pileated Finches. The larger the place in which your birds live, and the more exercise they can have, the more liberties may be taken with their food. The dried ants' eggs are, in my opinion, the cause of deaths innumerable. If your Cordon partook of them, that alone will be sufficient to account for the apoplexy.

Yes, the Cordons are beautiful little creatures. I always have some here, and have bred several, children and grandchildren. When once established, they are easily kept, and will live for many years.

REGINALD PHILLIPPS.

CROWNED PIGEONS.

SIR,—In another month or so, I expect to receive a pair of Crowned Goura Pigeons from New Guinea; and perhaps some member who has kept the species will give me information about them in the Magazine. How should they be fed, and how should they be treated? I particularly want to know what shelter they require, and if the house ought to be almost closed, or *open on one side*, as for Golden and Silver Pheasants.

OCTAVIA GREGORY.

[When acclimatized, the Gouras are comparatively hardy, but if Mrs. Gregory's arrive in March they should be kept fairly warm until the spring is somewhat advanced; and by next winter they should be able to stand a moderately low temperature. But with birds hailing from hot countries it is never advisable to let the temperature of their abode fall as low as freezing point, however hardy they may appear to be. During the summer months they should occupy an aviary, at least half of which is open to the elements, and turfed; the other half being roofed in and sanded with coarse grit.

As to food, a mixture of small maize, barley, wheat, and peas should suit them.—E.D.]

CHINESE QUAILS.

SIR,—I have noticed no article or mention of the Chinese Painted Quail during 1901. Will not members who bred them last summer let us know the result?

I was unfortunate; my hen laid nine eggs, but would not sit; and I concluded the nest was too dry and hot.

I have sown wheat and rye grass in a compartment exposed to the elements this year, hoping they will do better next time.

Both are well and very tame.

GRACE ASHFORD.

[Very few of these charming little birds seem to have been bred by our members last year; we hear of several failures but few successes.

We have found that ordinary grass is much preferred by the Quails to wheat or rye-grass, which is too coarse. The nest is usually a hollow scratched beneath overhanging tufts of grass, and very slightly lined with

hay. If the hen is missed, and a nest is suspected, it is a mistake to search for her, as the nest is generally so cleverly hidden beneath the grass that it is almost impossible to detect it without disturbing the surroundings, and very possibly causing the bird to forsake. Wait patiently until she appears with her brood of wee chicks. Fresh ants' cocoons, dug straight from the ground with the whole nest, are the best food for the chicks at first: but they will soon pick up the small "Indian" millet. They grow wonderfully quickly. We reared about thirty from two pairs in 1900.—ED.]

ORIOLES.

SIR,—I have received a new bird, and would be grateful if you could identify it for me. I am sending a sketch made by my wife, which will give a nearer idea of it than any description. It comes I believe from India, and appears to be an Oriole, I think a *Kundoo*. If so, I wonder if it is a male, which I hope and am inclined to think it is, owing to the trace of a dark marking round the eye. You will notice the irregular patching of yellow on the back. It is very greedy, always gorging on bananas, and has all the appearance and manners of a young bird, and prefers being fed from the hand.

I understand all Orioles are streaked on the breast when young, and I think the hens likewise have some streaks. HENRY B. RATHBORNE.

The following reply was sent to Mr. Rathborne :

Mrs. Rathborne's interesting painting, which accompanied your letter, shews that your bird is unquestionably an immature Oriole; and, as the black loreal spot seems to extend round and behind the eye, it is very likely, as you suggest, a Sykes' Oriole, *Oriolus kundoo*, from India. But, if the black should develop into a horse-shoe band round the back of the head, it will probably be the Black-naped Oriole, *Oriolus diffusus*, from India, China, etc. The yellow patches, as represented in the picture, are indications of moult. I have kept the kindred species, the Golden Oriole, from babyhood to the adult plumage; and, if *O. kundoo* passes through the same stages, then your bird is in its second feather and about to moult into the third.

I have been comparing your picture with an immature Black-naped Oriole which I now possess; and it is curious to notice that, whereas the dark markings on the bill of your bird and on that of the immature Golden Oriole seem to be identical, the black on the bill of my *Diffusus* is arranged quite differently. Moreover my bird, although not so forward as yours, already shews traces of the black horse-shoe band, which does not appear in your drawing; all these things point almost conclusively to your bird being *O. kundoo*. I am not sure about the shade of yellow of the new feathers on the back. If very bright, it is likely that your bird is a male. The fully adult females do not, I think, have any breast streaks.

The streaks are signs of immaturity in most of the Orioles, but not in all. For instance, the Australian Green Oriole, *O. viridis*, of which I have a fine specimen, keeps its "baby" plumage all its life, and is, in this respect, rather a scientific curiosity.

Your species is very much tamer than the Golden Oriole

Let it have as much fruit as it will eat, but it requires other things too. Give it cockroaches, a little carefully scraped cooked meat, and a very few mealworms. Keep it comfortably warm. REGINALD PHILLIPPS.

THE WOODLARK AS A CAGE-BIRD.

SIR,—I am thinking of purchasing a Woodlark, but before doing so I am anxious to know whether you consider it a desirable *cage*-bird.

A Skylark I cannot bear to see caged, as it seems for ever dashing about to get out, and if the Woodlark behaves in the same manner I had much rather not have one. H. SPEED.

The following reply was sent to Mr Speed :

A Woodlark makes a delightful cage-bird when it has become tame : its song is less sustained than that of the Skylark, but is much varied, liquid, rippling, and bell-like.

I have found Skylarks satisfactory cage-birds. When newly caught they are nervous, and apt to jump up and bump their heads against the roof of the cage ; but if the roof is made of canvas, it does not hurt them, and they get tame very soon : hand-reared birds are better, because they begin tame, and they add the notes of other birds to their song.

Of course you are aware that the Woodlark requires a cage with perches ; for, though it roosts on the ground at night, it is far more arboreal in its habits than the Skylark. A. G. BUTLER.

THE SEVERE WEATHER.

SIR,—I was walking through the village yesterday (Feb. 12th) when a Sparrow suddenly dropped on the road, and, in trying to rise, fell backwards over its tail, as a Swift will do when it tries to rise from the ground. It was not until I took it on to my hand that it was able to fly off.

CHAS. CUSHNY.

The following reply was sent to Mr Cushny :

It was very curious about the Sparrow. Probably it had some slight seizure, most likely from the cold, or faintness from want of food or water. The poor wild birds suffer terribly in a severe winter, and many die. Their case is very different from that of our own pampered pets ; and aviculturists should succour them also—with water as well as food.

REGINALD PHILLIPPS.

It is with much pleasure that we are able to announce that the Council of the Zoological Society have decided to award its Silver Medal to our member Mr. E. W. Harper, in consideration of his numerous gifts of valuable Indian birds.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

GOULDIAN FINCH, hen. (Mrs. A. C. Charrington). Appeared to be well but half-an-hour before found dead. For some time this bird and a cock have looked somewhat puffy. They have been fed on millet and canary seed, spray millet, grapes, and apples, and have been supplied with cuttle-fish bone, and good sand.

[This bird was very fat, and cause of death was apoplexy. You might add grass seed to their diet, and give as much exercise as possible, and do not keep in too high a temperature.]

PENNANT PARRAKEET, cock. (Mrs. Michell). Lived in outdoor aviary for seven years, but has lately appeared quiet and feeble. Fed on canary seed and fruit.

[The cause of death was tuberculosis of liver and lungs.]

DEMOISELLE CRANE, cock. (Mrs. Gregory). This bird was taken ill suddenly, being unable to stand. Convulsions set in and lasted (at intervals) for an hour-and-a-half, when it died. Fed on maize and wheat.

[Death resulted from acute inflammation of liver and bowels. The suddenness suggests an irritant poison; there were decided symptoms of arsenical poisoning.]

CORDON BLEU, cock. (Miss E. E. West). Died quite suddenly.

[Your bird died of apoplexy. It was very fat.]

GREY SINGING-FINCH. (Mr. Clayton). Appeared unwell Jan. 24th, and died next evening. Was gasping all day.

[Death resulted from a fractured skull.]

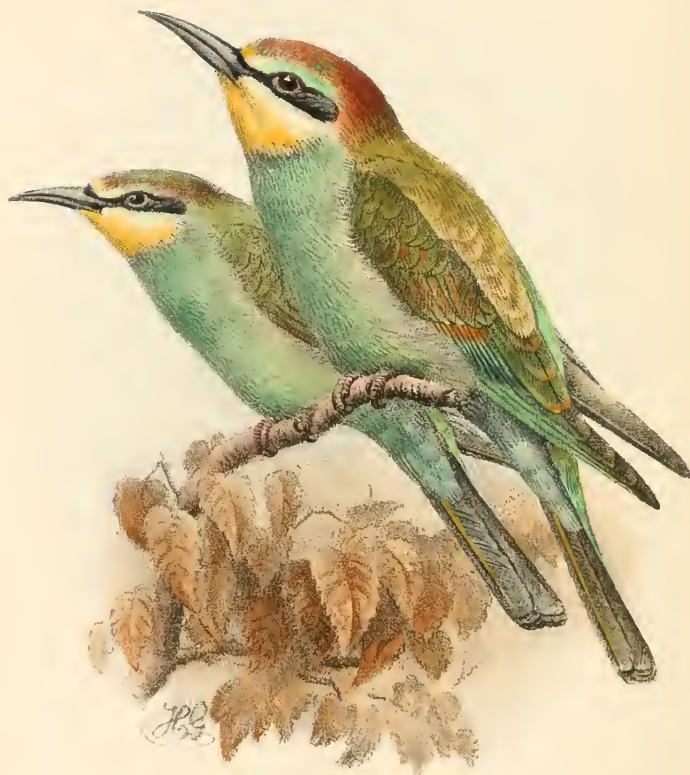
BLUE ROBIN. (Mr. C. L. Rothera). Found dead.

[Concussion of the brain was the cause of death.]

SATIN BOWER-BIRD. (Mrs. Johnstone). Found dead.

[Apoplexy was the cause of death.]

ARTHUR GILL.



H. Woodcock, del. et lith.

Mintern Bros. 1887

IMMATURE BEE-EATERS ♀♂.

Merops apiaster.

From the specimens in the possession of Mr. Phillips.

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APRIL, 1902.

THE EUROPEAN BEE-EATER.

Merops apiaster.

By REGINALD PHILLIPPS.

A *common* bird is the European Bee-eater; ho! a *rare rare* bird is the European Bee-eater—just according to circumstances. If you will pack up your trunks, and take your walks abroad in the summer time, you will find the species pretty generally distributed around the Mediterranean, growing rapidly scarcer as you travel towards the cold, though a few misguided individuals straggle quite a considerable way northwards. In some parts of Greece, Turkey, South Russia, Asia Minor, and Northern Africa, at certain seasons it is common. It would like to be common in Southern Italy, but the Italians make their country too hot even for such a heat-loving species as the Bee-eater, for the Italians' one idea of aviculture is to eat the birds. Round and about Tangier, it receives a gentler welcome, for there it breeds, or used to breed, in the walls of the courtyards of the inhabitants. And as to Spain, well, in Southern Spain the natives use it as a means by which to partake of their honey, and this is how it is done. The bees gather the honey, the Bee-eaters partake of the bees, and the bee-owners partake of the Bee-eaters—an arrangement which sounds as if it were perfectly fair and equitable to all parties; and, indeed, it is only the cries of the bee-owners which, so far, have reached our ears—but it is not always those who shriek the loudest who are hit the hardest!

Nevertheless, on the other hand, if, like the typical Britisher (who lets his country go to the —, to the Germans, I mean, just from want of a little energy and enterprise), you will *not* go to look for the bird, but say, "Books tell me that the Bee-eater is a British species, and has appeared to the English, to the Irish, yea, even to the Scotch, and it may just come and appear to me; I will take my most comfortable arm-chair, and sit in my garden until I see a Bee-eater";—well, there you may

sit until your chair and you alike take root, or crumble into dust as the case may be, before ever a Bee-eater will come your way. For the majority of the stay-at-home inhabitants of these Islands pass their lives without seeing so much as a single specimen of this interesting species. And should you trust to the dealers, to whom, you know, you have only just to "state your wants," you will probably fare as badly; captive Bee-eaters, I am well aware, have previously found their way to this country, but their visits have been much rarer even than those of the wild bird.

Before I take up the story of the two little troublesome pets which have stirred up my slumbering pen to write this article, I may well say a few words about Bee-eaters generally.

There are some seventeen species of true Bee-eaters (*Merops*), which may be distinguished from their kinsfolk by the elongation of the central tail-feathers (see uncoloured illustration); and some one or more of these may be found in Europe, Asia, Africa, and Australia, but not in America. They are bright coloured, short legged, long winged, curved billed, slim birds of the air, taking most of their prey on the wing; like Swifts when aloft, like Terns when on the ground, like Todies (*Todus*) when sitting side by side on a perch. Like Todies and Sand Martins, they breed in colonies, in holes in the banks of rivers, etc., from preference, but in other holes, even in holes on the level ground, when more convenient premises are not forthcoming. The holes are tunnelled by the birds themselves with their bills, and the eggs are pure white; no nest is made. Mr. Layard (*Royal Natural History*, Vol. IV. p. 55) says of the nest-holes:—"It does not always select a bank into which to bore the hole destined for it's nest, for we found one flat piece of sandy ground perforated with numberless holes, into which the birds were diving and scrambling like so many rats."

The Common or European Bee-eater is the only species of the genus which regularly visits and breeds in Europe; but it is by no means confined to Europe, for it's range extends as far to the East as North-east India; and, as has been already stated, it breeds in Northern Africa, that continent generally being likewise it's winter home, where in the autumn it is by some supposed to breed a second time; but we have no means of knowing that the individuals which have been found breeding south of the equator in the autumn are the identical birds which bred or will breed, in the previous or following summer, on the shores of the Mediterranean.

The adult Bee-eater is about ten inches in length, and the

plumage very much more chestnut above than in the immature bird. The scapulars and back are creamy buff; and it is stated that the forehead is white and the iris lemon-yellow. The throat is bright yellow, and the under parts of a brighter and more blue-green than in the young bird; and a black band crosses the lower throat, separating the yellow from the green. This black band does not appear in the first or second feather, though I think I detect some indications of it in the second feather. The sexes are fairly alike; but the male is the larger and more



ADULT BEE-EATER.

(From MIVART'S *Elements of Ornithology*.)

brilliant bird, with little or no green on the head and back. I feel inclined to say that, as a general rule, and at most ages, the male may be distinguished from the female by its larger size and by having so much more chestnut (instead of green) above, especially on the crown.

Thanks to the courtesy of our Publisher, Mr. Porter, we are enabled to present to our readers an excellent print (from a block in his possession) of the adult Bee-eater, shewing the elongated central tail-feathers and the black band which crosses

the lower throat. There are a few other minor differences in colour between the young and the adult, for the bird is adorned with quite a number of beautiful tints of yellow, blue, green, etc. The unhealthy craving of ladies for bright colours, no matter at what cost of avine life, causes countless numbers of these and other Bee-eaters to be slaughtered. Doubtless, locally, perhaps especially in Spain, the Common Bee-eater kills quantities of honey-bees. But in many or most hot climates the number of other bees, and of wasps and hornets of spiteful and vindictive natures, not to mention locusts, and other hurtful creatures, is so great that some districts would be practically uninhabitable if it were not for the splendid services of the Bee-eaters of various species. The tiniest Bee-eater will unhesitatingly pursue and capture the largest hornet, killing and rendering it innocuous by banging it against its perch, and by passing it sideways backwards and forwards between its tight-closing mandibles. These latter close together with a spring, like the two jaws of a steel-trap or gin, so that, when the bird is preening its feathers, the snip, snip, snip, of the mandibles as they close upon one another after passing along the feathers is incessant, only to be out-done by the tap, tap, tap, bang, bang, bang, of the side of the bill against the perch, as it knocks the life out of numberless imaginary wasps and hornets, the slightest atom of food or drop of water on the bill setting it going like an "alarum." The place of the Bee-eater in the Economy of Nature is very important.

The immature Bee-eater is mostly green above, and lacks the elongated central tail-feathers and the black band across the lower throat. In both the first and second feather, judging by my birds, the forehead is light yellow instead of white, and the iris dark brownish. Towards the end of February, in a good light, traces of the prospective change in the colour of the iris were perceptible; perhaps, if the light had been better, they might have been detected earlier.

The bill, which appears to be black at all ages, is slightly curved, sharp pointed, and long—considerably longer in the adult than in the immature bird. After the birds have been excavating, it is usually much worn away, especially where the soil has been hard and sun-baked; but it grows again to its normal length during the off season. Probably, like the Black Lark engaged on her nest-hollow (Vol.V., p. 170), the Bee-eater, when tunnelling, works the bill sideways, though perhaps not with a full right-and-left movement. I think this is probable from what I have seen of the habits and movements of my

own birds, and also because wild specimens have been observed with one side of the bill greatly worn. It taps the perch with only one side of the bill; and the bill being worn mostly on one side might seem to suggest that it works in a somewhat similar one-sided manner. I am unable to say which sex is the more industrious, or whether both alike assist in the work of excavating.

In the young and adult of this species, from and in a straight line with the black bill, there runs backwards a black line across and embracing the eye and terminating with the ear-coverts, which are produced behind so as to form what might be popularly called an external ear. When the bird is sitting in it's ordinary posture of observation, with the head down and the bill slightly raised, this ear is not observable; but it becomes conspicuous when the back of the head is drawn up and the bill is pointed downwards. It is perhaps rather more observable in the male than in the female.

Our artist, Mr. Herbert Goodchild, has done his best—and a very pretty best it is—to let us see what young Bee-eaters in their first feather are like. I was rather urgent that the painting of my two birds should not be deferred, notwithstanding the fog and darkness, for one of them seemed to be dying; but just as the fates have so far been disappointed of their victim, so were they disappointed in their endeavours to spoil the portrait; perseverance and skill gained the day; and the painting, which was commenced on the 10th October, was completed on the 21st., and speaks for itself. I fancied, from the amount of chestnut on the head, that the male must have commenced his moult before I received him, but perhaps I was wrong; and this may be the normal colouring of the young male: certainly it was later before he shed feathers with me. They moulted very slowly and gradually during the winter, perhaps because of the comparative cold; but it is possible that it is a beautiful provision of Nature that birds who largely depend on their powers of flight for obtaining their daily bread should have a gradual moult, so as not at any time to be crippled. It was not until February that they began to moult the breast feathers, the bright new feathers shewing out conspicuously from among the old, and proclaiming to all how the work was progressing in that particular region. Since their portrait was taken, they have changed considerably, the colours of the adult slowly but steadily superseding the green plumage of the young birds on the upper parts; and the bills are much longer. Perhaps,

before I complete this article, I may be able to find time, on a bright day, to record more in detail the particulars of the plumage up to date.

So far as we may venture to judge from an isolated case, it will be seen that the moult of this species is a winter rather than an autumnal one.

(*To be continued.*)

THE YELLOW-EYED BABBLER.

(*Pycnorhis sinensis*).

By E. W. HARPER, M.B.O.U., F.Z.S.

This delightful little bird was first acquired by the London Zoo, in 1868, when four specimens were purchased; and, as it has never since been represented there, I think we may take it for granted that the species is not at all commonly imported into England. Neither in India, its home, is the Yellow-eyed Babbler a common cage bird; although, in a state of freedom, it extends almost all over the Empire. Probably the fact of its being attired in a somewhat sombre garb, and also that it is not what can be called a "song-bird," account for its non-popularity amongst native bird-keepers. The plumage of the bird is rufous-brown above, and white on the chin, throat and breast; a white streak also extends before, above and behind the eye. The sexes are alike. The most striking part of the bird's appearance, however, is that from which its name is derived, namely, its eyelids, which are of an intense golden-yellow colour; these give the bird the appearance of wearing a pair of spectacles. The "spectacle-bird" proper (*Zosterops*) has a ring of white *feathers* round each eye; while our little friend now under discussion has its *eyelids* prominently coloured, somewhat after the manner of a Barb Pigeon. Oates gives the bird's entire length as "seven inches" (of which the tail measures about half) and "the tarsus one inch." The extreme length of leg gives great facility for hopping; the bird is an adept at clinging in every conceivable position.

Its prey is held under one foot, whilst it tears it to pieces with its beak. In the case of maggots, the poor, unfortunate insects are literally stretched like elastic by the bird's foot and beak, until they break from the strain.

What the Golden-eyed Babbler lacks in beauty of plumage and power of song, is more than balanced by his interesting and

engaging habits. By the way, do not for a moment imagine that he *cannot* sing! For, when dancing for very love before his mate, his little head bobbing from side to side in his endeavour to show her how much he admires her, his sweet, little voice is heard to great advantage. Alas! that anger and rage should also make him sing; but true it is, nevertheless. Some weeks ago I introduced five Golden-eyed Babblers into an aviary already containing three of these birds. One of the new comers was immediately surrounded by the three old tenants; who, with glaring eyes and snapping beaks, caused him to assume a defensive attitude by lying upon his back upon the floor, and defending himself with feet and beak against his three assailants; they, meanwhile, singing and bobbing their heads from side to side in the greatest excitement. I believe that each of the new arrivals was "initiated" and put through his paces in the same way; by roosting-time, however, peace—and I hope, joy—reigned supreme; for they were all to be seen sleeping quietly in a row, as closely packed as the proverbial "herrings in the barrel!"

All Babblers like society—I merely mean companionship, not necessarily the "high society" into which some humans (new word) are eternally striving to enter. Just as we have all heard that there are some greedy little children who live to eat, so the Yellow-eyed Babbler—and all other Babblers—live to be tickled. Failing being tickled, there is only one other recreation under the sun that will satisfy him; that is to tickle someone else. When these birds are not eating, drinking, bathing or sleeping, they are unhappy if not engaged, either actively or passively, in the art of tickling. The one who is undergoing the operation of being tickled holds up his head, closes his eyes, puffs out his throat, and turns first one side of his head and then the other to the operator—just like a man being shaved in a barber's shop. Should the tickler cease operations, the eyes of the tickled one are half-opened, to make sure that the tickler has not quietly disappeared. A short time ago, I put a Striated Babbler (*Argya carlii*) into the same aviary in which the little Yellow-eyed Babblers were. Although many times their size, he and they were soon engaged in their mutual pastime. One little fellow, in order to reach the top of the head of his big cousin, actually clung on to the wires of the aviary, three or four inches above the level of the floor. If he had only been born a biped, instead of having been hatched a Babbler, we might have expected a display of his inventive genius! This same Striated Babbler is a veritable ring-master; in less

than a week he has taught a Black Drongo (*Dicrurus ater*) to tickle him. This is remarkable when we remember that tickling is as unnatural to a Drongo, as swimming to a fowl.

Stolen apples are said to be sweet. How about stolen maggots? Frequently I have seen a little Golden-eyed Babbler snatch a maggot from the beak of a Pied Crested Cuckoo (*Coccytes jacobinus*), which the latter had just picked up and was about to swallow. Another of my birds which used to be considerably annoyed by the Yellow-eyed Babbler was a Larger Racket-tailed Drongo (*Dissemurus paradiseus*); his half-yard or so of two wire-like tail-feathers with their knobbed extremities were evidently regarded by the little Babbler as playthings. He would clutch one of them in his foot, and try with his little beak to nip off the end. Even a man's moustache, if held close to the wires of the aviary, is sure to be explored by the inquisitive little bird.

Now for a few words about the Yellow-eyed Babbler's diet. Dr. Butler's famous mixture of powdered biscuit, ants' cocoons, egg yolk and dried flies would doubtless suit him excellently as a staple food. Personally, whilst in India, I do as the Indians do: that is to say, pea-meal, well mixed with a little refined butter, forms the staple diet of nearly all my insectivorous birds. With this is intimately incorporated, every alternate day, a little raw, finely minced liver or kidney. Whatever food be given, meal-worms or maggots should form part of the daily *menu*. Tit bits of a hard and shelly nature, such as grasshoppers, cockroaches, dried flies, etc., must be given at intervals, to cleanse and stimulate the digestive organs; for the same reason that beasts and birds of prey require hair, fur, or feathers, to keep them in continued good health. At the suggestion of our esteemed member, Mr. F. Finn, I have tried raw, fresh-water shrimps as an occasional food for insectivorous birds; with most satisfactory results. All Babblers are more or less frugivorous, and our little yellow-eyed friend is no exception. An orange, cut transversely, or a slice of pineapple is a great treat. Chopped lettuce is a most useful addition to the larder of most soft-billed birds; *P. sinensis* appears to appreciate it, holding a piece under one foot as though it were an insect.

In conclusion, let me entreat the aviculturist not to confine the Yellow-eyed Babbler in an ordinary Canary cage. His extremely active habits demand space; and when an aviary is not at hand, nothing smaller than a breeding-cage, such as is used for Canaries, will suffice for the bird's comfort and his owner's entertainment.

ON THE MAKING OF AN AVIARY.

By the Rev. C. D. FARRAR.

I have met people who possessed a "Crystal Palace Cage," who thought they had done all that could be required in the way of aviaries. Of such I will not stop to speak. By an aviary I mean a fairly large enclosure where the birds have opportunity to stretch their wings and maybe to nest.

Now, it by no means follows that because a man has money and can put up such a place, that you would call him an aviculturist. A man may have a big library, who never takes down a book; and a man may have a fine stud of horses, and yet never ride. In the same way there are numbers of people who tell me in confidence "that they love the dear birds, but"—yes, there is always a 'but,'—"the English climate is so detestable, cold searching winds, black frosts, drenching showers,—render for them aviaries impossible. There are others, again, for whom "aviaries are too expensive," and so they are obliged to put up with cages.

The more I study things, and the longer I live, the more clearly do I see that these persons do not really love birds at all; if they did they would overcome their difficulties, and with them "nothing would be impossible."

A very decent aviary can be put up at a very trifling cost, and as for climate—well, Yorkshire has samples of all sorts, and yet I do fairly well with the dicky birds, in spite of the fact that the air here is often what Hamlet calls "nipping and eager."

In building an aviary, it is not so much a question of money as common sense; and I will always back the latter commodity against the longest purse.

You must (1) Select a suitable spot. (2) You must arrange the whole as much like nature as possible. (3) You must lavish on your birds constant, personal, and untiring love.

Now, before trying to build, I should go and visit all the aviaries within calling distance, and from the best points of each I should construct my own. The one model I should severely avoid is the Western aviary at the Zoo.

In this country of East winds and uncertain climate, we are wont to exaggerate the delicacy of foreign birds, and in countless cases the pursuit of aviculture is abandoned for want of confidence in the ability of the birds to endure it. With a southern aspect—because all birds love the sun—and protection

from that chartered libertine, the East wind, many of the tenderest and most reputedly delicate foreigners will live and thrive. I should be the last to suggest the introduction of birds which are certain to succumb to the amenities of our charming climate, and which seem to be continually apologising like Charles II. for their "unconscionable time in dying." I do not believe in "riding to a fall," but no sportsman deserves the name who will run no risks.

It must be borne in mind that birds are far tougher than some people think, and, given good shelter and plenty to eat, they will take little harm and, like Hamlet, will bear the slings and arrows of outrageous fortune.

When I first began to keep birds in the open air all the year round, men held up, not maybe holy—but certainly astonished, hands. They said that such things ought not so to be, but when they had gazed a great while and saw no harm happen, they, like the barbarous people of Melita, changed their minds, and said that I was a god or something very like it.

In making an aviary, be natural. Wire there must be to secure the inmates, but it should be as unobtrusive as possible. Cover it over as soon as possible with trailing creepers and great bunches of glory roses. Nature will do the work if you will give her a free hand.

For supports choose old gnarled trunks with the bark on and moss still adhering to them. No straight perches of joiners' laths, but old lichen-covered branches of apple and plum arranged as like Nature as possible.

As with a garden, so with an aviary: it is impossible to give definite designs and absolute decrees, where often the extent is unknown and the site and surroundings are different. My suggestion would be to follow Nature as far as possible, and to remember that "*ars est celare artem*," and we may always rest assured of this that, where we humbly try to copy Nature there will always be signs and tokens to guide us.

Of aviculture it is true as of everything else: "Whatsoever thy hand findeth to do, do it with thy might." Even in our recreations we should aim at perfection, rather than remain on a dead level or become a good all round duffer. We should take as our motto the old words, "*Quod facio, valde facio*." Some men I know have attained such stupendous heights of knowledge that I feel before them like the insignificant worm! They produce in me that "feeling of dropping down deadness," which

Sydney Smith used to say a certain Bishop of London loved to see in his clergy.

It should be the primary endeavour of every true aviculturist to collect all the most beautiful specimens which he can obtain, and arrange them with all the knowledge he possesses as to their nature, dispositions, and size. He will make some mistakes, but these will suggest their own rectification; whereas, all the endeavours of wealth and self-conceit to drive out Nature with a pitchfork, will end in pitiful failure. Again and again I have seen the most beautiful results attained where means were scanty, but where love was large. I have seen lamentable results of lavish expenditure but absence of all true love. I remember once a rich man came to see my birds with his poultryman. "Ah," he said, turning to the lad, "we have the houses." "Yes," was the reply, "but Mr. Farrar has the birds!"

In every aviary there must be Seclusion, whatever else goes short—quiet spots for rest and retirement. Our aviary should be like Jerusalem; "the vision of peace." No ravenous beast must be there in the shape of the domestic cat, it shall not be found there. What the birds want is a place where they may dwell safely and none shall make them afraid.

The man about to build an aviary will always meet with a warm and fraternal welcome, and he will speedily find that one touch of nature makes the whole avian world kin. Since I first began to keep birds and passed from darkness to light, more or less comparative—I have met with nothing but kindness and help.

The third and most important rule is this. You must give the birds close, constant, loving, *personal* attention. There is a vast difference between the man who merely keeps a lot of birds because somebody else has got them, and the man who really loves birds for their own sake. The one pays a lad to look after them and hardly knows their names—the other attends to them himself and knows every sign of health and sickness. It is the old case exemplified over again: "The hireling careth not because he is an hireling."

I have seen some of the saddest sights in such aviaries as it is possible to imagine. Birds sitting about on the perches with a sort of Roman gladiator expression, "Morituri te salutant"; water pots empty, rat holes abounding; and all for the want of a little care, a little attention, a little love. *You can never keep*

birds by deputy. Money will do a lot of things, but money cannot keep an aviary going; a man may be ever so rich and yet the humble vicarage will beat him, because the vicar, although like S. Peter, he has "neither silver nor gold," has love and common sense.

In the vicar's aviary you will find birds that always die elsewhere. Many-colors rejoicing in the snow, Zosterops happy at Christmas, Rufous-tail Grassfinches singing in spite of stormy wind and tempest. Ask the priest how it is done; he will tell you that "*Amor omnia vincit.*"

There was a time, and not so very many years ago too, when albeit a Bachelor of Arts and also a quondam scholar of my College—so far as foreign birds were concerned, I was sitting in darkness and the shadow of death. I could not have told you the name of the commonest bird that hops, and had I gone in for an examination on foreign birds, I should have undoubtedly received a polite intimation that I had "failed to satisfy the examiners."

Since then I have read every book I could lay hands on; I have interviewed countless patient aviculturists; and the birds I have bought and lost would fill a fair sized cemetery. I have at present enough travelling cages to start a bird shop; and as for boxes, I could keep the house in firewood for six months—and yet I am not satisfied; but, like *Oliver Twist*, am "always asking for more." My wife often tells me that I am a perfect godsend to the dealers, as they all know that they can pack off their rubbish to Micklefield, and it is sure to be kept; and sad prophecies are frequently uttered that we shall end our days in Tadcaster Union. Let us hope not: "*Video meliora.*"

Sometimes, when I go and see a very gorgeous £100 aviary, I feel "a little bit down," as they say up here; something like Martha Penny felt anent the Dissenting Meeting House after she had witnessed the gorgeous ceremonial of Rome: "Law," she said, "but it do look mean and pokey!" But then I think of a story told of Sir Tatton Sykes. A visitor, small in stature but large in self importance, severely criticised some of the famous thoroughbreds. "Well," said Sir Tatton, "perhaps you are right, we can't get everything we want. If we could," he added drily, "perhaps your father would like you to have been a little longer in the leg!" but there, you can't have everything!!

EGRETS' PLUMES AND THE LADIES.

BY F. FINN, B.A., F.Z.S.

[Mr. Frank Finn has kindly sent us a copy of *The Asian Sporting Newspaper*, to which he is contributing a series of articles entitled "How to know the Indian Waders," and in which we find the following interesting and practical paper on this momentous and burning question, to which we draw the special attention of our readers.—R.P.]

HERONS.

THE TRUE EGRETS, with which we are now concerned, have attained a melancholy celebrity on account of our own woman-kind looking with an envious eye on their wedding garments. For the nuptial plumes of these birds, which are long, with thread-like, disunited webs, constitute what are known in the plumassiers' jargon, for some inscrutable reason, as "osprey." To obtain these, the poor birds have been most ruthlessly killed off in many places, notably in America and in China, and although such destruction has not overtaken them here as yet, they have not altogether escaped by any means. The special cruelty of killing Egrets for their plumes lies, of course, in the fact that they bear them only when breeding, and that thus the helpless young are left to starve when their parents have been shot down. There has been lately some attempt made to effectually stop this atrocity by rendering the wearing of "osprey plumes" a legal offence; and certainly something ought to be done, for to kill a brooding bird is not only an unsportsmanlike and cowardly act, but is set down as a serious sin in the Old Testament. At the same time, it seems to me that in this case, as in so many others, a compromise can be effected. The Ostrich, whose plumes were once his cause of destruction, has now been domesticated for their sake, and thus given a better chance of survival than he ever could have had otherwise; and I should like to suggest that a similar policy be followed with our Egrets. I have heard of an Egret-farm in Algeria; and no doubt our birds could be kept to supply plumes at a very cheap rate, if allowed the run of a shallow tank enclosed in a wire-netting fence, and fed on small fish, shrimps, chopped refuse meat, &c. Another plan would be to regulate the taking of the birds, making the capture of Egrets a monopoly of licensed bird-catchers, who should pay a tax to Government, and be under strict obligations to let the birds go after clipping off the coveted plumes.

This would do the birds no harm, and ensure the ladies a constant supply of what is undoubtedly a very beautiful article of decoration.

That the idea of taxing wild birds of their plumes, so to speak, is not an impracticable one has been proved by practical experience in several instances. In Central America the natives before the Spanish conquest habitually treated the magnificent Quezal or Resplendent Trogon (*Pharomacrus mocinno*) in this way; no one was allowed to kill the bird, but it might be limed and robbed of its yard-long, burnished-green train, for royal wear only. Similarly, in the Sandwich Islands, the O—o, (*Acrulocercus nobilis*), a large black Honey-Sucker, was regularly caught and despoiled of two brilliant yellow tufts growing under the armpits, which were wanted for the regal feather-mantles. Both birds have survived to the present day, whereas had they been killed outright for their feathers they would undoubtedly have been exterminated long ago. Indeed, this has happened with another Sandwich Island bird used for this purpose, the Mamo (*Drepanis pacifica*). This bird was about half yellow, and hence either had to be killed outright or could not stand so much plucking.

Of course, I don't for a moment advocate that Egrets should be *plucked*; clipping off the plumes would be the proper course to pursue in all such cases, and this should be insisted on. Thus a valuable product would be secured at very little inconvenience to the birds, and an additional motive would be given for their protection, while the Government might derive some benefit from the licences.

After this somewhat lengthy discussion of Herons' and Women's Rights, we will proceed to the discrimination of the different kinds of Egrets. They are all, as I said before, long slender birds; and their necks are closely feathered and hence look particularly slim. They have the usual sedentary and piscatorial habits of Herons, and all associate when breeding. *They are always all white*, and, except for size, look very much alike out of the breeding season. At that time, however, they are sufficiently distinct, as each has a different style of *trousseau*, which, as usual in Herons, is worn by the bridegroom as well as the bride; and it is amusing to note that the smaller the bird, the more elaborately it dresses. There are three sizes of Egrets, of which the biggest is:—

THE LARGE EGRET.

(Herodias alba).

Native names: *Mallang-bogla*, *Torra-bogla*, *Tar-bogla*, *Burra-bogla*, Hind.; *Dhur-bogla*, Bengali; *Pedda-tellakonga*, Telugu; *Mala-konga*, Gond.; *Vella-koku*, Tamils of Ceylon; *Baddudel-koku*, Cingalese.

This Egret is nearly up to the typical Heron size, being about a yard long, with the wing nearly fifteen inches, shank six, and bill a little shorter. But these are merely average measurements, for it is a most variable species in size; the wing may be only thirteen inches, or as much as seventeen, and the shank only just over five or more than eight. The colour cannot very well vary, being white only; but the bird puts on a splendid train of plumes in the breeding season, reaching several inches beyond the tail. At this time also its complexion (presumably under the influence of intense jealousy!) undergoes a change; ordinarily both bill and face are yellow, but at nesting-time the bird gets green in the face and black in the bill. The legs are always black, and the eyes yellow like those of most Herons.

The bird is found practically all over the world, but does not seem very numerous anywhere. In England it of course gets shot at sight for being a "casual straggler"; and in New Zealand it was so well known as a rarity, and so much admired, that, "welcome as the Kotuku" was a Maori proverb. The Maories used to keep the bird alive when they could get it, and, I regret to say, pluck its plumes regularly.

With us this species is a resident, though migratory in some instances. It is less fond of society than the smaller sizes of Egret, but will condescend to associate with these in the social gatherings so much affected by Herons at the breeding season. This is during the rains, whenever these may happen to fall. The eggs are blue-green, and generally three in number.

On account of its great size, which would render it more secure against the attacks of vermin, this Heron would be a particularly good species to keep alive in enclosures for the supply of plumes. It does well in captivity, one having lived for over twenty years in the Calcutta Zoological Garden, during which time he must have grown and dropped many pounds' worth of plumes. He was not a bird of the most genial disposition; indeed, I used to call him "Hannibal chollop," because, like that celebrity's, his motto seemed to be "Two feet in a circular direction is all I require."

THE MIDDLE EGRET.

(*Herodias intermedia*).

Native names: *Patangka* or *Patokha bogla*, *Karchia-bogla*, Hind.; *Puruwallai-koku*, Tamil of Ceylon.

This size of Egret corresponds, when in winter plumage, very closely with the last, but it has a proportionately shorter bill, and is smaller, though not very much less than small specimens of the Large Egret, the total length being twenty-six inches, and the wing a foot. The shank, however, is less than five inches long, and the bill under four. In complexion, and in the change thereof in the breeding season, it resembles the Large Egret, but it carries a more costly wedding-robe, having "osprey" plumes not only on the back but on the breast also. The train is particularly long, sometimes reaching nearly a foot and a half, and almost touching the ground.

This species is found throughout a large portion of the warmer regions of the Old World, from Africa to Australia. It is resident with us, and breeds in closepacked colonies in trees, laying four pale blue-green eggs. It is a particularly tame species, often breeding in towns, and on this account and of the abundance of plumes it carries, would be particularly suitable for protective cultivation in the open.

THE SMALL EGRET.

(*Herodias garzetta*).

Native names: *Kilchia* or *Karchia bogla*, Hind.; *Nella nucha konga*, Telugu; *Sudu-koka*, Cingalese.

This smallest size of Egret is only a little over two feet long, with an eleven-inch wing, and four-inch shank and bill, the last-named member being thus proportionately longer than in the two larger species. The bill is always black and the face yellow; the legs are black, and the toes more or less yellow. In breeding dress this bird carries a train of the usual style, but gracefully turned up at the end; it also has a tuft of breast-plumes, but these are simply long ordinary feathers, not filamentous ones; and a crest of two long ordinary plumes adorns the head.

This dainty looking bird inhabits practically all the warmer parts of the Old World, and is a resident with us; it is more prolific than the other species, laying as many as half-a-dozen eggs. For aviary cultivation this would be the best species of our three; but there is a better species of even smaller size in America, with filamentous plumes on head, breast and back:—the Snowy Egret (*Leucophoyx candidissima*).

THE RINGED FINCH.

(Stictoptera annulosa.)

By REGINALD PHILLIPPS.

Many of our readers will be interested to learn that a consignment of these interesting little finches reached the London Market in January ; and, as most of them were offered for sale at a business, as contrasted with a fancy, price, they were soon scattered about the country in the homes of various lovers of small seed-eaters. Hitherto, so far as our knowledge of the matter extends, the species has been represented in this country only at uncertain intervals by a few straggling pairs.

All of us know the "Double-banded" Finch ; and many of us have expressed surprise that a name so simple and well adapted should be so often rejected in favour of that of "Bichenov's Finch." The reason is that there are two Double-banded Finches ; and the name "Bichenov's Finch" has been given to our old familiar friend to distinguish it from the species which now claims our attention.

I have placed my new arrivals, consisting—judging by the plumage—of birds of different ages, conditions, and sexes, in a flight cage near to that occupied by my Bichenov's ; and as I look from one to the other, and compare their plumage, voices, and movements, and observe how like they are to one another, I wonder to myself why they should have been treated by scientists as specifically distinct. I am not finding fault—quite the contrary ; but I cannot help feeling that, if a number of the two were thrown together in a confined space, in a warm climate, they would interbreed and get mixed up together as readily as Gouldians have. But, after all, this sage remark applies nearly as forcibly to other closely allied species, such as the Masked with the White-eared, and the Parson with the Long-tailed, Grassfinches.

The Bichenov's Finch (*Stictoptera bichenovii*) is found, broadly speaking, in North-east and Eastern Australia ; and its place is taken in the Northern Territory and in North-west Australia by the Ringed Finch. The lower back of Bichenov's Finch is white, and the lower back of the Ringed Finch is black ; and this distinction has caused persons in this country who are unacquainted with its real name to call it the Black-backed Finch. Not only is this name not nearly such a happy and distinctive one as that of Ringed Finch, but it is a name which has already been given by the Australians to

Poephila atropygialis, a rare Grassfinch which was discovered not so many years ago, and which, not so many years ago, eluded even Dr. Bowdler Sharpe (Br. Mus. Catalogue : Vol. XIII, p. 375). We and the Australians, thanks to the Boers and Mr. Chamberlain, are now one people ; and it will be a pity, as has been done with several other species, if we call the Ringed Finch by a name which properly belongs to a quite distinct species, and which we may hope some enterprising dealer will before very long introduce to the aviculturists of this country. When it arrives, let us be ready with its proper name, and not thoughtlessly dispose of the name beforehand.

Mr. Keartland, quoted by A. J. Campbell in *Nests and Eggs of Australian Birds*, says of the Ringed Finch, "This pretty Finch was only seen near the Fitzroy River, where it was breeding during February and March. By a close observation of the material used it is possible to determine to which species of Finch the nest belongs. The Ringed Finch usually chooses a site in some drooping branch about ten feet from the ground. In the case of those examined the outer covering was invariably very coarse—dead grass loosely woven together—but the lining was of the finest silver-grass, and a marvel of neatness. Six eggs form the usual clutch. Although some were perfectly white, one clutch from which I caught the bird had a faint bluish tinge, similar to those of the Chestnut-eared Finch."

REVIEW.

AN ORNITHOLOGIST IN THE SOUDAN.*

With the conquest of the Kalifa and his followers the study of the fauna of the Soudan, which had been out of the question for fifteen years became once more possible, and the last day of February, 1900, saw an Ornithologist in the person of Mr. Harry F. Witherby, leaving England in quest of the birds inhabiting the banks of the White Nile. At Marseilles Mr. Witherby was joined by two taxidermists who were to accompany him on his expedition, and the three reached Cairo on March 6th. The journey from there to the Soudan Capital is described in an interesting and graphic way in the volume before us, though few birds were observed, three species only being mentioned.

At Omdurman birds were still very scarce, there being no

**Bird Hunting on the White Nile* by HARRY F. WITHERBY, London ; Office of "KNOWLEDGE," 326, High Holborn. Price 2/6.

trees near the town. Kites and Vultures were the most conspicuous; and everywhere a House-sparrow (*Passer rufidorsalis*) was in evidence. The start from Khartoum up the White Nile was made on March 21st, the east bank only being explored, the west being at that time regarded as unsafe.

Although Mr. Witherby's book forms the narrative of a naturalist's expedition in search of birds (141 species being observed, a list of which is appended) it is also a brightly written record of a traveller's experiences amongst the tribes of the Soudan.

BIRD NOTES.

A short time ago, Professor Newton invited our members to try which birds would eat mistletoe berries, but so far we have heard no further on the subject. Apparently mistletoe berries are not very readily eaten by any wild birds, and it is not until severe weather sets in and other food becomes scarce, that these berries are taken. Mr. F. Boyes, of Beverley, wrote thus to the *Field* of March 1st, last :

The berries on the mistletoe remained untouched until the spell of severe weather a fortnight ago, when the ground became covered with snow, and the birds were driven almost to starvation. Then it was, on the last day before the thaw, that every berry in the garden disappeared. I think, though I am not certain, it was the Redwings which got them, for these birds were then remarkably tame through hunger, and they are always the first to suffer during frost. The Mistletoe Thrushes are singing finely now the winter has gone. They might have taken the berries, for they came about the garden during the frost.

The *Zoologist* for Feb. contains an interesting account of the South African Ground Hornbill or Brom-vogel (*Bucorax cafer*) from the pen of Mr. W. L. Slater. This bird (of which an illustration is given) inhabits the eastern half of Cape Colony, where it is known as the "Turkey Buzzard" or "Wild Turkey." They move about the country in small flocks and feed entirely on the ground, and, unlike other hornbills, they walk and do not hop. All kinds of insects and grubs, snakes, frogs, lizards, tortoises, rats, and mice, form the food of this species.

The South African Natives attach magical properties to the Brom-vogel, chiefly in connection with the production of rain. "The Kaffirs of the eastern portion of the Colony," writes Mr. Slater, "during times of severe drought, will kill one by order of the 'rain doctor.' A stone is then attached to its neck, and it is flung into a 'vlei,' or sometimes into a river. The idea is that the bird, having an offensive smell, will make the water sick, and that, in order to remedy this state of things, rain will fall in great quantities, which will flush out the 'vlei' or river."

"In captivity," Mr. Slater proceeds, "this bird makes a charming and delightful companion; it is very sociable, and loves to come and squat close to one to be petted. It is most useful in the garden, as it spends a great deal of its time searching for caterpillars, snails, worms, and grubs of all kinds; should, however, any young chickens or ducks be about, it is

well to keep the bird under restraint, as these are delicacies which even the best regulated 'Brom' cannot resist."

A specimen of this interesting species has just been presented to the Zoological Society by Major C. H. Rowley and is now on view in the "Eastern" Aviary.

CORRESPONDENCE.

DISEASED BEAKS.

SIR,—The Gouldian Finch seems to be rather subject to this affection which, however, occurs in many other species. The best result is obtained by scraping off the growth directly it is first noticed—if it has made much progress, the case is practically hopeless—and then painting the part with a solution of ten grains of nitrate of silver to one ounce of distilled water. The application may have to be repeated a second time.

W. T. GREENE.

BREEDING EXPERIENCES IN OUTSIDE AVIARY.

SIR,—I think it may interest some of the members of the Society to hear that I have successfully reared three young Saffron Finches, in an outside aviary without any heat whatever. My outside aviary has a run of eight feet by four feet and height 6 feet, with a wooden house at the end, in which are the nest boxes of different kinds, and seed hoppers and swinging perches; so that the birds get exercise inside when shut in on account of the weather; but I find both in snow and rain they are usually outside all day; during the night they are shut in. They have a good sized enamelled tin dish of fresh water each day on the ground in which they bathe, all weathers.

In October, 1899, I stocked it with the following birds, viz., a pair of Popes; a pair of Cardinals; a pair of White Java Sparrows (these, in the Autumn of 1900, laid several sets of eggs, but never sat, and the hen died of exhaustion); two pairs of Budgerigars; and a pair of Saffron Finches (which reared three broods last Autumn) all of which are still living and thriving outside. The first Winter I put a small lamp in the house all day during the very cold weather, but took it out at night when the birds were shut up, for fear of fire; but have never required to do this again. I found the two pairs of Budgerigars did not agree, so I took one pair away. In January, 1901, I had three young Budgerigars, but, unfortunately, one very severe night, after a span of warm weather, they were found dead in the nest. I am expecting a young brood of Budgerigars to be hatched out soon.

I have also succeeded in rearing some Green Singing Finches in a large aviary cage that stands in a corridor, where they are seen by everyone, and they did not mind a bit being looked at.

I have not been successful with Gouldians. The hen has twice been egg-bound, and another time laid an egg at the bottom of the cage: so, finding it was of no use, I have taken away the nest and hope for better luck next Autumn. The cock is in most lovely plumage. I give them *Setaria glauca* seed occasionally, which they seem to like very much; but they are difficult birds to cater for. They eat very little, I find; but have a

tin each of canary-seed, red millet, and fine and white millet mixed. They do not care for green food of any kind, nor banana or apple, so it is very difficult to make a change in their diet. I am not able to put my Gouldians outside, as I do not come down to the country until August, when it would be too late to put them into an outside aviary for the first time; so I keep them in a cage by themselves.

All my foreign birds like the red millet better than the white, and I give them occasionally "Arthur's mixture" mixed with cold potatoes. And I find the birds in the outside aviary are very fond of cold potato by itself, when I place it between the mesh of the aviary.

I have never found the Green Singing Finches or Saffron Finches the least bit quarrelsome or egg-eaters. I give all my birds scraped cuttle-fish bone and rock-salt; I do not find that they care for the salt. The Budgerigars are the only troublesome birds I have had: they killed the first nest of young Saffron Finches and quarrelled together, so I had to take them out of the aviary until the young Saffrons got old enough to take care of themselves; and I only put back one pair, which are now nesting. The Popes and Cardinals have not attempted to breed.

I planted a small fir tree in the centre of the run and a box in each corner, and the run is gravelled over; but the fir tree was soon destroyed; the box trees, however, are still living.

MARY MILLER.

THE HOODED SISKIN AND THE WILD CANARY.

[The following extracts from a letter received from the Rev. H. D. Astley (published by permission), and written from the Island of Teneriffe "in almost constant and brilliant sunshine, with the temperature night and day at 68°," will probably interest many of our readers. The species he refers to is quite new to me, but the painting enabled me without difficulty to identify the bird as a male Hooded Siskin (*Chrysomitris cucullata*)—exemplifying the great value of coloured plates. "*Habitat*—Venezuela and Trinidad. Introduced into Cuba and Porto Rico."—R. P.]

I am enclosing you a very rough water-colour sketch of a lovely little bird that I bought in Santa Cruz, and whose proper name I do not know. Can you identify him for me? I have never seen him in England, which may be an oversight on my part. It is a Finch from Caracas (South America) which is imported to Teneriffe, and mated with the Wild Canary, producing a mule-bird like a Wild Canary dipped in saffron. The Caracas Finch is called "Cardinal" by the Teneriffe people. I have also got a "mista Canaria," *alias* a hybrid Canary; the father is the little orange Caracas Finch, and the mother a Wild Canary.

Both these birds are thought highly of by the people in Santa Cruz.

The "Cardinal" (so-called) has a vivacious merry little song, which reminds one of a Goldfinch and a Linnet (or Siskin); and his ways are very much like a Goldfinch's.

He has a shrill little call-note (or perhaps an alarm-note), like a sweet-sounding slate pencil drawn for half a second along a slate. Such a jolly little bird, and quite tame when I let him out of his cage in a room.

The hybrid takes very much more after the Canary (Wild) than after the "Cardinal."

It is the shape and size of the former, with its song almost exactly

reproduced. In colour, it is just as if you took a Wild Canary and dipped it in a dye-pot of saffron orange. The greenish yellow of the Canary tempers the orange, and tones it down; and a very pretty bird is the consequence. He has a suspicion of a darker head than a Canary, but nothing so marked as his father's!

The "Cardinal" would make (if properly painted) a charming subject for an illustration.

The Wild Canary is the commonest bird on this island; and its song all about makes one think one is perpetually passing by some outdoor aviaries! You see them in large flocks, like one sees Linnets in England.

HUBERT D. ASTLEY.

[The Hooded Siskin (adult male) is about four inches in total length, the general colour being vermillion of different shades, with black markings on the wings. The quills and tail-feathers are nearly black, the thighs and abdomen white, while the crown of head, sides of face, ear-coverts, cheeks, and throat are black. The female is different, and the colours of the young male are overshadowed with brown.—R. P.]

THE CROWNED CRANE: NOTES ON PINIONING.

SIR,—Yesterday I received a Crowned Crane, and had its wings cut on arrival. Would you kindly advise me as to whether I should have him *pinioned* later on? as the feathers growing again I suppose there is risk of his flying away if not done just at the right time. He has been two years in England, kept in a run five yards square, shut up in a house at night, and fed on maize, boiled potato, and bread and milk. Being in such a confined space, it seems extraordinary he should be in such beautiful plumage. How should he be fed? Do they dance like the others? he seems so slow in his movements, but perhaps has not yet recovered from his journey. I suppose it will do him no harm shutting him up at night? he has no objection, and they told me he would be noisy early in the mornings unless I did so.

I imagine that my bird is the Balearic or Western Crowned Crane (*Balearica pavonina*) as it comes from West Africa, and has so very little white on the face, and *no* wattle under the chin; the body too is of a dark slate colour. The plumage is very fine.

OCTAVIA GREGORY.

The following reply was sent to Mrs. Gregory.

I should most strongly advise that the bird should be presently pinioned—when the weather becomes more genial. There is great risk of the exact time for feather-cutting being allowed to slip by. For the feathers coming down in the "pen" cannot be effectually shortened, as they will continue to grow, perhaps sufficiently to allow of the escape of the bird. While, if the operation is delayed until the moult is completed, a windy day may come, and, if the captive is alarmed or excited, he may easily rise high enough to get over the fences, etc.

Moreover, the periodical handling arouses suspicion, and the pinioned bird tames much more readily.

I have superintended the operation in the case of many species, from the Whooper Swan to the Chinese Quail, and have never lost a bird. But, on the other hand, I have lost not a few by escape; or by the bird falling

into danger, after getting out of it's enclosure. I once lost a fine pair of Common Cranes, by a fox, from this cause. And, only three years ago, three of the magnificent Manchurian Cranes escaped from Woburn, from being imperfectly pinioned, and were murdered in this district (E. Yorks.), having been able to stray so far.

A Crane, like a Seagull, can fly with a considerably shortened wing; and it is necessary, in pinioning them, to take at least eight feathers off, if their enclosure is spacious enough for them to take a run against a head wind.

I may add that three persons are required to operate on a bird of the size of one of the larger Cranes.

In the case of a waterbird, the cold water staunches the bleeding at once. But it is surprising how little notice any bird takes of this operation, if quickly performed; and it appears to mind it a good deal less than it's owner.

As regards the food of the Crowned Cranes, in the splendid collection of these birds at Lilford, the two species are represented; and I find on enquiry that they are fed entirely on grain, bread, and barley meal. And there they do not appear to care for animal food of any sort, contrary to what has been recorded of these birds in the wild state, where they are both described as feeding on small reptiles, and wading in flooded places after fish (Tegetmeier's 'Monograph of the Cranes.'*) In the same work, Buffon is quoted as having found that a Western Crowned Crane in his possession preferred boiled rice to anything else. Some Sarus and Demoiselle Cranes of mine are all very fond of Spratt's meal and crissel, scalded, and dried into a crumbly mass with ground oats. This, with grain of various kinds, boiled potato, and bread, is their food; besides what they can pick up in their enclosure, which in summer amounts to a good deal.

Except in warm weather, the bird under notice had much better be shut in at night. In fact it would be wise, in every possible respect, to continue, during the cold weather, the treatment to which it has been accustomed.

At Lilford Hall, the Crowned Cranes are shut in all the winter in sunny, but unheated, houses.

As to whether the Crowned Cranes *dance*—I am almost certain that I have seen them do so at Lilford. Mr. Tegetmeier's Enlarged Reprint of Blyth's 'Monograph of the Cranes,' on p. 22, speaks of the *B. pavoninus* dancing. I think there can be no doubt about it at all. But a bird of this size, which has for two years been confined in a 'cage' five yards square, would scarcely find room to 'do his steps'! I am well pleased to hear that he will have more space now, at his new home. W. H. ST. QUINTIN.

[NOTE.—There is also the Cape Crowned Crane, *Buteo chrysopelargus*, which has the bare sides of the face white with a line of vermilion on the upper margin, which is rounded. In the Museum Catalogue, a third species is recognised, *B. gibbericeps*, in which the upper margin of the bare face is produced in a small triangle to the sides of the occiput.—R. P.]

(a). Strictly speaking, it is a Monograph of Mr. Edward Blyth, reprinted and enlarged (considerably) by Mr. Tegetmeier.—W. H. ST. Q.

POST MORTEM EXAMINATIONS.

RUI, ES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

JAVA SPARROW. (Mr. M. E. Rycroft). Found dead.
[Cause of death was apoplexy].

ZEBRA FINCH. (Miss Hawke). Found dead in sleeping-box.

[Death was due to inflammation of the oviduct, caused by inability to lay a soft-shelled egg.]

BUDGERIGAR. (Mr. W. G. Percival). Found, puffed up, on bottom of cage. Was put into warm room, and given three drops of castor oil at intervals. It died same night.

[Death was due to acute peritonitis, most likely caused by chill.]

JAMAICA GROUND DOVE. (Mr. W. F. Parker). Found dead one morning, had seemed well night before. Food: maize, wheat, hemp, and canary seed.

[Inflammation of the liver caused death. I should be inclined to substitute good old tares or small Indian peas for the maize.]

IMPEYAN PHEASANT, hen. (Mr. W. H. St. Quintin). Did not feed for some days, seemed unwell, gradually got weaker, and died.

[Pneumonia was the cause of death.]

TOUCAN. (Mrs. Johnstone). Seemed very puffed and disinclined to feed. Was kept in a bright glass house, where windows were opened on warm days.

[Inflammation of the bowels was cause of death, brought on, no doubt, by a chill.]

BEARDED REEDLING. (Mr. Sich). Dashed against bars of its cage while being fed. [Died of concussion of the brain.]

CORDON BLEU. (Mr. N. Roberts). In owner's possession since 1896; never ailed until Feb. 27th last, when it looked puffy, with distended crop.

[Jaundice, caused by acute congestion of liver, brought on probably by chill.]

VIOLET DOVE. (Miss Alderson). Seen to fly from shelter and drop heavily to the ground. Found to be very lame and soon died.

[Right thigh fractured, probably from catching claw in something. One claw very long and curved. Was a hen.]

PEKIN ROBIN. (Mrs. Allbutt). Purchased last April. A hen put with him about a month ago developed enormous appetite and died. A week later cock died with same symptoms.

[Inflammation of liver and bowels. I have found Pekin Robins do well on seed in addition to the soft food.]

ARTHUR GILL.





MAJOR FOTHERGILL'S RHEAS

Photo, by F. Williams, Hawkhurst

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RHEAS IN CAPTIVITY.

By Major H. FOTHERGILL, J.P.

I have had an interesting experience with my pair of old Rheas. The female laid twenty-three eggs, some of them many weeks after the male had commenced to sit. After sitting the usual six weeks he hatched out six strong little birds and left the nest with these. I took nine eggs which remained in the nest and placed them under large barn-door fowls, one of which hatched out two young Rheas shortly afterwards. On the appearance of these strange youngsters, when the eggs burst open in two halves with a slight explosion, the hen immediately rushed away with a cry of terror, leaving the chicks to their fate. I thereupon wrapped them in flannel until the evening when they were put under the male Rhea, who took to them all right.

The accompanying photograph shows the male Rhea with the eight chicks, nearly full grown, being fed by me.

The Rhea is a native of South America, and inhabits a district of country about 200 miles in breadth running from the north-east to the south-west. (a)

My experience with these birds, during many years, is as follows:—The hen lays her eggs promiscuously about the field, and her mate, with his beak, collects them into a hollow, which he scoops out in the ground. *He* then sits and hatches out the young birds in 42 days. The female has nothing further to do in the matter, and, in fact, is apt to tease her mate and cause trouble if not removed into another field. The male Rhea becomes exceedingly savage and dangerous during the breeding season, and, at that time of the year, makes a loud, booming sound which I have heard quite a mile away. The female makes no sound whatever.

(a) The Common Rhea (*Rhea americana*) is replaced south of Rio Negro by Darwin's Rhea (*R. darwini*) which occurs as far south as the Straits of Magellan.—Ed.

THE EUROPEAN BEE-EATER.

Merops apiaster.

By REGINALD PHILLIPPS.

(Continued from page 108).

[NOTE.—The first part of this article had to be published last month, to accompany the coloured plate, but it was premature in the sense that my Bee-eaters had not completed their moult, were not in fact so far advanced as I had supposed. After moulting the breast feathers (p. 107), to my surprise they commenced moulting, both together almost to the day, the forehead, cheeks, and throat down to the black line. This throat-line has now become fairly distinct, so that my statement on page 105 that it is absent in the second as in the first feather of this species cannot stand. The light colour of the forehead, hitherto a narrow line of yellow, now extends backwards towards the crown, but the future colour remains doubtful : at present it is a light green. The eyes of both the birds remain dark. The ends of the tail have been somewhat broken, but the elongated central feathers were, I think, attained at the close of the year, and the female still retains one perfect elongated specimen, which is but little longer than the others. The last of the old flights, an inner secondary, was shed on March 30; they have been some four months moulting these and the tail feathers, just dropping one or two at uncertain intervals, exemplifying my suggestion which appeared on page 107. The bills, which are of a dense dull-black colour, are a good deal longer, a little stouter, and more decurved than figured at page 105. The black band, also, which runs from the bill to the ear-tufts, is broader, and practically in a straight line with the bill.—R. P., April 4, 1902].

In September last I received an affectionate invitation from a London dealer to come and pay him a visit, as he had a pair of young Bee-eaters which he thought I might "like to see." According to his account, they had been taken from a nest in Roumania (they breed along the banks of the Danube); and he had purchased them in Vienna, and had himself brought them to this country.

This invitation sorely exercised my mind. There had been a time when the subject of Bee-eaters had been brought rather prominently before me, and I had even entertained visions of having them flying about in my aviary as plentifully as Weavers and breeding as freely as Bengalis ; but I knew enough

about them by this time to hold very different views. And now I am old, and have my hands very full; and to have such a handful as a pair of baby Bee-eaters would, I thought, be the proverbial last straw that would assuredly finish off my already partially broken back. I have an unfortunate weakness for getting hold of most troublesome and burdensome species, and had been bitten so often that I was very shy of the invitation. But I *did* want "just to see" the birds,—and, I argued that, behind the enormous price the dealer would ask, I should be able to beat a not too undignified retreat, and so, on the following morning, went to meet my fate. They were in better condition than I had expected to find them, but had been fed, as I had suspected, solely on mealworms. To keep a bird for weeks or months solely on mealworms is not impossible, however detrimental to the bird's health; but no bird can last under such conditions, and where could a substitute for the mealworms be found? Birds like these will never look at insectivorous food; and I gave this, and the heavy price demanded, as reasons for declining the birds, and turned to depart. "Then what *will* you give?" asked my friend, and I responded—"Well, I suppose I cannot offer less than so much," mentioning just half his price, and expecting a prompt dismissal.—But, no, I was not to be let go so easily. "If I cannot find anybody else to buy them, I will let you have them." This was not a bit what I had intended; and I went home slowly and sorrowfully; and rating myself soundly for my weakness and folly.

A few days later came the much-dreaded letter:—I could have the birds at my price; and, on the 20th September, 1901, like a man crawling to the scaffold, I once more entered the fatal door. One of the Bee-eaters was looking fairly well, the other fairly unwell; and in their cage there was a dish of the nicest-possible-looking moistened ants' cocoons that bird-lover ever beheld. Our friend, by the way, sells ants' eggs, as well as mealworms, and always has a good word for them. "Have you got any ants' eggs? they will do well if you feed them on ants' eggs and mealworms!" and he drew my attention to the dish in the cage:—but, alas! I knew full well that that dish so artfully prepared had not been prepared for the Bee-eaters to swallow—but for me! "You have them **CHEAP**," shouted he after me as I walked down the steps—"CHEAP!!!" And from his point of view they were—but from my point of view they were dear at any price; and, instead of bearing my Bee-eaters home in triumph, I returned as downcast and depressed as I felt,

but a few weeks later, when I found myself constrained to take up the Secretaryship of the Avicultural Society.

I had prepared a cage in my dining-room, 6 ft. long by 2 ft. by 2 ft., and had arranged the perches as best I knew how for the reception of the Bee-eaters, the open food saucers being placed on two little tables which raised them to the level of the lowest perch, which ran parallel with them along the lightest end of the cage, a few inches above the ground. In theory, the arrangements were perfect, but they did not work out properly in practice. The birds cuddled together on a high perch, and never budged an inch, and to save them from starvation I tried to hand-feed them. They were ravenously hungry, and pecked wildly at what I offered, but seemed quite unable to take the food from my fingers, and eventually became discouraged and gave it up. To make a long story short, I discovered two points about them for which I was totally unprepared. I found that, accustomed as a species to the intense glare of an African sun, they could not see except in a very good light—which was decidedly encouraging when I thought of the fogs and general gloom of a London winter. For years the cage had been standing on the side of a large bay window, in excellent light for London, and birds of many kinds had approved of the position. The new tenants, however, could not see to move about, much less to take food, and there was nothing for it but to swing the cage round so as to bring it nearly across the front of the window—an excellent arrangement for the birds, but one which so darkened the room (for there was another cage of the same superficial dimensions, but loftier, on the top of the Bee-eaters') that I and my birds, Bee-eaters and all, would have found ourselves in a warm corner if the Queen of the Establishment were not exceptionally amiable, and as keen an aviculturist as myself. Even with the cage in this unexceptionable position, on the bright mornings, they would not venture down to the food dishes until after 9 o'clock, and on dull days not till later; and in the afternoons, after having been caught a few times by evening gloom before they were safe in bed, they stopped feeding about 2 o'clock. Three powerful hurricane lamps did not seem to aid them in the least; so that for a good part of the winter, during which they were slowly moulting, I could rarely get them to feed as much as 5-6 hours out of the twenty-four, a most unsatisfactory state of affairs. Their great terror in the afternoon was lest they should be caught by the dark; and, although I would lift them down to

the dishes, they would not feed. The shortening, and later the lengthening, of the days puzzled them immensely, and the latter was productive of comical scenes. In the early afternoon they would be safe in bed; but darkness came not, and hunger pinched them, and the food dishes were inviting; and after much chattering they would cautiously sidle along downwards in the direction of their dining tables, rushing back to bed after partaking of a hurried snack.

After a while, rather a pretty state of affairs was developed, a representation in avine life of Noel Paton's beautiful picture "Faith and Reason," which will be remembered by our members north of the Tweed. Whenever the Bee-eaters are in the slightest difficulty, it is their custom to call out for Daddie; and eventually the hen became so satisfied that sooner or later I would come and put her safely and comfortably to bed that she ceased to be frightened at the approach of the gloaming: she had faith in me; but the male, trusting to his own reasoning, would not feed so late, even if lifted down, but would rush frantically off to bed.

During this present almost unprecedented foggy March, they *both* seem inclined to leave everything to me. Having learned wisdom from experience, they proceed to their dining-room at the latest possible moment, and then, after feeding, sitting side by side, they commence whistling for me; and there they sit and whistle until I come and put them to bed. In doing this, I just take hold of them across the back with their heads towards me, and place them on the long sloping bough which terminates in the bedroom at the extreme upper inner corner of the cage; and then they sidle along to bed. But this act, simple as it may seem, has to be executed with discrimination. Occasionally, after seeing them safe to bed, perhaps an hour or so later, I would hear agonizing calls for help, and, on coming to the room, would find the excited male craning over the side of the bed, and whistling:

"Oh where, oh where is my little wife gone,
Oh where, oh where is she-e-e-e?"

and down below, demurely and quietly squatting on the floor, and patiently awaiting my arrival, would I find the poor little woman. I would place her on her perch, and then the two, as if drawn together by some irresistible magnetic power, sidling along the perch, would rush sideways towards one another until they came into contact, when they would cuddle together,

shake out their feathers, utter a few warbling whistles or intense satisfaction, and settle down for the night.

These falls, at night, of the female from her perch concerned me greatly, for she had always betrayed a predisposition to apoplexy; and some time elapsed before my mind was relieved by discovering the real cause of the ont-of-bed tumbles. I discovered that, like other folk, each one has it's own particular side of the bed, the male ungallantly electing to sleep next the "wall." If, by any mischance, the lady gets (or, rather, got—for she is too wise to do so now) on to the sloping perch before the gentleman, or if I, unwittingly, placed her on the inner side, as they sidled along, little by little as the darkness increased, she would eventually find herself in her lord and master's place next the wall, and, sooner or later, would assuredly be landed on the floor. The exact *modus operandi* I never discovered, for, although much the stronger bird, the pushing of the male would only push her against the side of the cage. I can only suppose that, in his dreams, he squeezed more and more against her until she was in some way squeezed off the perch. Let us hope that it was nothing worse than this!

(To be concluded).

FEATHERS CHANGING COLOUR.

By ARTHUR G. BUTLER, Ph.D.

An American ornithologist has positively asserted that when a feather ceases to grow it becomes to all intents and purposes dead, having no vital connection with the body upon which it has grown. If this were the case it would be impossible for the plumage of birds to change excepting by a complete moult either of the whole of the feathers or of the overlapping portions: it would also be impossible for a healthy bird to show greater brilliance of colouring than an unhealthy one, or a dead bird to lose its vivid tints within a few days; or, if protected from the light, within many years of its decease.

Every man who has kept birds in any numbers, is well aware that a healthy bird is not only more glossy in plumage (perhaps partly owing to the healthy condition of the oil-gland), but is more vivid in colouring than a sickly one; but lest this be doubted, I will go one step farther, and say that everyone who has kept birds, and after their death has had them prepared as dried skins, will admit that, even though preserved in the dark, the

colouring rapidly loses its brilliancy, and in some cases entirely changes in character: so that descriptions prepared by a scientific ornithologist from skins alone, may be incorrect when compared with living specimens.

If you look at the description of the Red-headed Gouldian-finch (*Poephila mirabilis*) in the British Museum Catalogue, you will find it described as very pale grass-green, the belt across the breast beautiful lilac, and the lower body below golden yellow. In the living bird the colouring is brilliant vivid green, with the breast bluish violet or 'pansy blue,' and the abdomen saffron yellow. The change begins to take place soon after death, proving conclusively that the feathers are fed by the juices of the body.

In some birds the pigment of certain feathers is soluble in water. I am told that this is the case with the Touracous, which when bathing stain the water, and greatly reduce the brilliancy of their colouring; but that subsequently the feathers again assume their vivid hues. If this is true, it can only be explained by the fact that the feathers are still acted upon by the body, and are living.

It has been widely and unhesitatingly asserted of many birds, that they moult twice in the year; and of others, that the spring moult is a partial one, consisting in a shedding of the terminal fringes of the feathers, so as to expose the brighter colouring overlapped by them: the late Henry Seebohm was much devoted to the latter explanation of those changes from winter to summer plumage which are observable in many birds.

In some cases undoubtedly the change is effected as described: it is certainly so in the House-Sparrow, and probably in the Brambling; but an examination of a Redstart, which died in the middle of the spring change, conclusively proved that the fringes were not shed, but changed their colour; no broken fringes existed in this specimen, but the tips of many of the feathers were particoloured.

Seebohm speaks of the Wagtails as having both an autumn and spring moult. I kept the Pied Wagtail for about three years in a cage, and can positively assert that it only moulted in the autumn; I purposely kept both the Grey and Yellow Wagtails in cages, in order to watch the change to the spring plumage, and in neither case was a feather shed; the colouring grew, day by day, *in the feathers themselves*.

Speaking of foreign birds; if all the changes which take place, say in the common Amaduvade Waxbill (commonly called

Avadavat) were due to a moult: the unfortunate bird would be perpetually moulting throughout the live-long year; but if this were the case I should be continually tormented with letters asking at what season this Waxbill ought to moult, and informing me that its cage was always in a litter from perpetual loss of feathers (*b*).

A careful study, day by day, of a good series of Weavers, for a succession of years; and an examination of the skins of those which died during the change; proved conclusively that the assumption of the summer plumage was only partly effected by moult; all the short feathers which had to be replaced by ornamental crests, ruffs, tail-coverts, or flank-plumes, were moulted out, but the feathers of the back, breast and abdomen simply altered their colouring. Last year I showed Dr. Sharpe an example in which some of these feathers were particoloured, others (manifestly of the winter plumage) were washed with orange, others again were fringed with orange.

One autumn I purchased about two dozen Weavers, freshly imported, and several of them coming into colour: the colouring continued to increase steadily until the cold of approaching winter began to be felt: then, to my surprise, the colouring as gradually receded from the feathers leaving all my birds in winter plumage. No moult took place from first to last, nor was there a moult of the feathers of the back breast and abdomen, when these same birds assumed their breeding-plumage in the succeeding summer.

The case of the Indigo-Bunting is still more convincing; inasmuch as the greatest care failed to satisfy me, that any feathers were moulted during the assumption of the summer dress; whereas, on the other hand, every example of three or four which died during the change showed feathers in all parts of the body partly of the winter and partly of the summer colouring. I gave one of the specimens to the late Sir William Flower (who had been half persuaded that the colouring of feathers was permanent) and he was constrained to admit that the evidence before him was convincing. In the same skin you may see every gradation from brown to blue, some feathers showing the faintest wash of the coming colour, others fringed, others again splashed with blue: no moult would account for such peculiarities.

(*b*). I daresay many who have Goldfinches have noticed that, just after a moult, the blaze on the face is sometimes golden, but that it deepens to crimson later on.—A. G. B.

For a man sitting before a cabinet of bird-skins, among which in all probability no spring changes are to be found, to assert that the colouring of feathers once formed is fixed and unchangeable, is presumptuous. It may be that we have no microscope powerful enough to show how the juices of the bird's body nourish and modify the delicate webbing of a tiny feather; but "seeing is believing" and "facts are stubborn things."

The idea (which has been suggested) that the surface of a feather scales off revealing the different colour below the surface, is an ingenious one; but it does not account for the changes due to sickness or death, it does not explain the increase and subsequent decrease of colour in my Weavers. A far better explanation would be to assert that heat produced a chemical change in the colouring of feathers; only unhappily, if that were true, we should have all the skins in our cabinets changing periodically from summer to winter plumage, and back again; which would, I think, be somewhat of a hindrance to scientific study.

When one knows that insects exist so small that they are barely visible to the naked eye, and yet with every delicate joint of each limb not only supplied with muscles, tendons but undoubtedly with blood-vessels, why should it be difficult to believe that even the finest filaments of a bird's feather may be equally well nourished? If you pluck a feather from a bird's wing or tail the root of the shaft is by no means dry and shrivelled, as it should be in a dead feather; for what purpose does moisture remain in the shaft excepting to convey vitality to the other parts? Is it conceivable that a dead feather would retain its secure hold on the skin of a bird for months together? We know that even our teeth are apt to get loose when the nerve perishes; and the latter are far better secured than the feathers in the skin of a bird; as anyone who has carelessly handled a bird, and seen it fly away leaving all its tail feathers in his grasp, is well aware. Depend upon it, as the hair of our head is nourished; as it loses lustre when we are sick; as trial, distress, or extreme fear will bleach it; so the feathers of birds are nourished; only losing their living connection with the body at the approach of the moulting-season, when the new feathers are pushing forward to replace them.

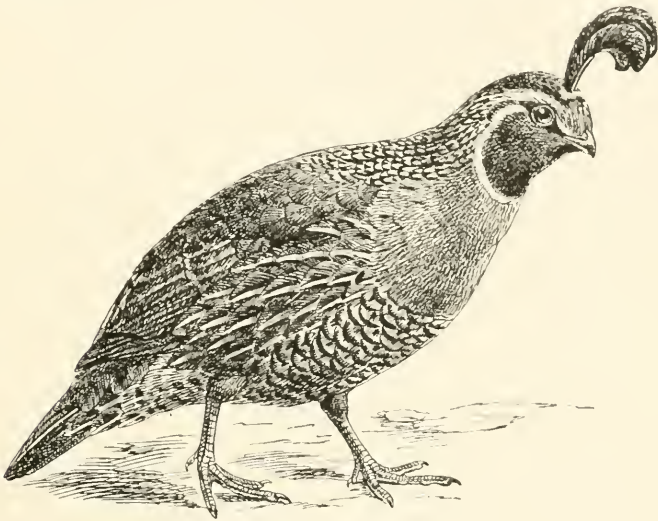
NESTING OF CALIFORNIAN QUAILS.

By ROSIE ALDERSON.

When a friend of mine, last winter, said to me, 'Would you care for a pair of Californian Quails,' I at once said 'Yes, thank you,' although I knew I had not very much room to spare; 'Still,' I thought, 'I will find a corner for them somewhere.' Besides I had an idea that Quails were *purely* ground birds, but in this I made one of many mistakes as you will hear later on. The little couple duly arrived looking very smart and trim, especially the cock with his black face sharply lined with white, and curved crest on the top of his head. I put the new arrivals into an aviary with a pair of Australian Crested Doves, who were starting to nest. To my surprise the Quails, instead of keeping to the ground, began to fly into the branches, and so disturbed the Doves, that after a time I had to remove them, as it was evident that the Doves would do no good whilst they were there. So I took the Quails out, and put them with my small finches in the heated aviary, but found I had only gone from bad to worse. The Quails, as before, flew right up into the branches, and instantly the whole aviary was in confusion. I hoped that they would soon settle down, but next day, seeing the little birds were still very frightened, I took the Quails away, feeling rather unhappy. *Why* the other birds should be so terrified I don't know, for they did not object to large Doves amongst them, but certain it is the Quails had only to move and the greatest excitement prevailed amongst the other birds. Finally I put the Quails in my large dove's aviary. Here they were very happy; the little cock was often heard to crow, and the couple spent most of their time sitting high up amongst the fir branches that were wired to the walls. I put them a heap of earth in the shelter, but though a hole was scratched, and sundry eggs laid *away* from the nest, the birds never set to work seriously.

About the middle of June I put the Quails in a duck-house that was fortunately empty just then. It is between 7ft. and 8ft. long, 2½ft. wide and 2½ft. high. About 2½ft. is boarded off at one end as a shelter; the rest is wired in front, with a door at the further end of the front. The roof is of wood, and lifts up in two parts. I took the door in the front off its hinges, and fixed in front of the house a run the same length as the house and 4ft. wide, covered with ½-inch wire netting. Some sods of grass were put in the inner shelter, and here the hen Quail soon scratched a hollow, and lined it with a few feathers. By June 25th, she had laid four eggs, and three days later there

were seven. About five eggs had been broken before the Quails were put into the duck-house, so I thought nearly the full sitting must have been laid. I had read it was best to put your eggs under a broody Bantam, so I got a hen and gave her ten eggs. She was a very good mother, and sat well. Most of the eggs hatched, but I only reared five of the young ones. Meanwhile the hen Quail still went on laying, and showed no desire to sit. I got a second Bantam, and put nine eggs under her; from these I reared four young birds. The hen Quail laid fifteen more eggs and then she began to sit herself very steadily.



MALE CALIFORNIAN QUAIL.

(*Lophortyx californicus*).

(FROM MIVART'S *Elements of Ornithology*).

Now here I did a very foolish thing. A friend offered me yet another broody Bantam, and I thought as the Quail could not cover all her eggs, I would wait until she went off to feed, and then take some of them away. But my greediness was very properly punished. I watched my opportunity and took away some of the eggs, but the hen Quail on her return to the nest refused to sit on the remaining eggs left to her, and to complete the misfortune the Bantam turned out not to be broody at all, and utterly declined to sit, but marched about the aviary in a most absurd fashion. I hardly knew whether to laugh or to cry, it all seemed so foolish; however I sent the Bantam back to her

mistress and put back all the eggs into the Quail's nest. The eggs had been sat on two or three days and were quite cold, and I concluded wasted, but I thought if I could only induce the Quail to recommence sitting it would at least give her a rest. I drove her back into the shelter where the nest was, though with very faint hopes that she would settle down. For about twenty minutes I guarded the entrance hole, and sent her back every time she tried to come out; finally she made up her mind to stay, and from that time sat steadily until the young were hatched. I now realised at what cross purposes we had been playing. The poor Quail hen had gone on laying egg after egg trying to make up the certain quantity of eggs that she considered the right number to sit on, and I had been taking the eggs away, quite convinced that as she seemed to show no inclination to sit, it was just wasting the eggs to leave them with her.

Of these 15 eggs under the Quail ten hatched, and I reared five birds, all of them cocks. They were not so strong as those brought up under the Bantams in consequence of being later hatched. Three grew into healthy, handsome birds, but the other two were very delicate, and I had to bring them later into the heated aviary. One, I think, will never be strong, but it is a very bright little bird; the other is improving very much. When first I brought it in from outside it had one foot with the toes quite curled up, and it hobbled about on the stump in a very miserable way. I had serious thoughts of binding each toe up in a starch bandage to try and straighten them, but I think the lameness must have been chiefly owing to weakness, for now the bird is stronger the foot has got quite strong and straight. Young Quails soon seem to get their feet dirty if they have not a large space to run in and probably this was what first started the mischief.

The young Quails were brought up on Mr. Arthur's food mixed with dry crushed biscuit and preserved yolk of egg. The two earlier broods also got a quantity of *small* house beetles (the larger ones they could not manage) and many hundreds of earwigs. These latter I caught in inverted flower pots half filled with crumpled paper, and placed on the dahlia stakes.

It was a pretty sight to see either of the Bantams kill an earwig and then call the young Quails to come and eat it. The little things would come running up chirping shrilly. They were very fond of their devoted foster mothers, and always followed them about.

The young Quails were sweet little things during the first

week or two of their lives; later, when they began to get their quills, they were not so pretty. When first hatched they were like downy balls of tawny plush with dark markings down their heads and backs, and very bright dark eyes. They were *very* active and *very* mischievous. Soon after they were hatched ten of them determined to make an excursion to see the world, and with a little struggling got through the $\frac{1}{2}$ -inch wire netting round their run. When it was found they had escaped a hunt took place, and it took two hours to collect them all and put them safely back. After this I fastened boards up all round the run, and so stopped their exploring. Several young ones I lost through drowning, for they persisted in getting into the water-pot, and another time I should always use one of Mr. Jones' patent fountains with which there would be no fear of accidents. Some of the other young ones died from exhaustion. At first I allowed the grass in the run to grow long, thinking it would be a nice shade from the sun, but finally I had it cut short, for the chicks were always getting either lost or entangled in it, and were picked up almost dead and quite unable to get back to their mother. You may imagine how very wee the little creatures were when I tell you that I brought three little ones into the house to be revived all in the palm of one hand (and my hand is only a small one as I know to my cost when trying to hold a large bird). I held the three chicks to the fire, and gave them weak brandy and water; soon they could hold up their little heads and open their eyes again, and finally tried to make themselves comfortable by nestling up my sleeve. It is wonderful how easily a young Quail collapses, and yet if found even *just* alive it will soon revive with care and warmth.

The brood brought up by the Quails themselves were brooded (out in the wire run) almost entirely by the old cock. The poor fellow used to seem perfectly ashamed of himself if caught in the act and always looked as if he wished I would look another way. He would sit with his feathers fluffed out, and first a tiny head would peep out under one of his wings, and then another from somewhere else. The hen would sit beside her husband, but chiefly to see that he did his duty properly. She rarely ever brooded the young ones herself. It was on June the 12th that I put the eggs under the first Bantam, and by September 20th they were entirely independent of her. Their crests had begun to show some time before, and now began to curl and divide. They varied very much in shape; in some the crests curled forward, in others backward, in each case

shaped like one feather. In another the crest was divided into three or four separate wavy plumes. Soon it was quite easy to tell the cocks from the hens by their colouring. As the young ones got older I began to give them seed—canary and millet—as well as soft food. They were very fond of green food, lettuce, watercress and rape seedlings, or a sod of fresh grass. Quails delight in a mound of dry earth or sand to take a dust bath in. I do not think these birds at all delicate after the first stages are passed. I did not lose one that had got over the first few weeks of its life.

My old hen seemed none the worse for having laid so many eggs, she was always well and active. She must have laid at least fifty eggs altogether, for some months afterwards we found nine aggs in the Dove house, where she was first put in the early part of the year. This clutch was laid in a wicker nest basket *very high up* amongst the fir branches. I quite think that Quails are not entirely ground birds if they have the chance of getting in trees. All the nine young ones of the first two broods used to spend most of their time sitting in the highest fir boughs in the aviary.

The eggs are shaped like a Partridge's and are rather large for the size of the bird.

Of the fourteen Quails I bred, nine were cocks and five hens. This year I hope to do better and avoid making so many errors; truly in bird keeping (as in many other things) one chiefly learns by sad experience; there is this consolation, the lesson is generally well learnt.

[Since writing the above my hen quail has laid her first egg on April 8th. I forgot to mention, it is as well to have a small door made in the front of the wire run, so that if a chick is exhausted in the run it can be taken out without trouble. Also it is a good plan to have a small pane of glass let into the roof of the inner shelter so that the sitting hen may be observed without disturbing her.—R. A.]

[We are indebted to our Publisher for the loan of the block from which the illustration accompanying this article, is printed.—ED.]

AVICULTURAL NOTES.

By G. C. PORTER.

I have seen it stated in the Magazine for 1898 that the Australian Crested Dove (*Ocyphaps lophotes*), when showing off to the hen, does not display itself like the species of *Turtur*

and *Geopelia* by drooping its wings, because if it did so its chief beauty, the larger wing coverts, would be concealed, so to avoid this, it raises its wings until the coverts almost join, making a band of colour behind the head. Now my bird certainly does not do this, but trails its wings on the ground as it bows, giving a brilliant display of the colours. Individual birds differ very much in their ways and I have found this to apply to the Doves, even more than other birds.

My Ring-necked Parrakeets have eggs already, the first being laid on March 9th. The cock bird spends a considerable part of his time in the barrel with the hen. Rather a change for him, because if he had gone inside a month ago, she would have done her best to kill him there. It is wonderful how savage that old hen Ring-neck is. This spring she burrowed into the next aviary, making a hole like a rat, and set upon her last year's young bird, biting a large piece out of its cheek and cutting two of its toes off. It lost a considerable quantity of blood but I think it will pull through all right now.

During the very severe February frost I was afraid the Corncrake would get his toes frost-bitten, as he persisted in standing on the ice on the large water-dish for hours together, and upon my breaking it he would have a bath with great enjoyment. His feathers used to freeze stiff afterwards, but this never seemed to do him any harm.

It seems to me that the food supply has more to do with the migration of this bird than the severity of the weather, as he seems to be much happier in an outdoor aviary than indoors.

The Corncrake's feathers are very greasy. I examined one that had been shot and found the grease could be scraped up like butter. I fancy this must protect it when running through the long wet grass.

I have read that kitchens are very unsuitable rooms to keep birds in, but my experience shows that such places are quite the reverse. The one I am writing of is very dark and faces North, but still the birds seem to do very well in it. My Redstart, for instance, came into song in November, has become finger-tame, and looks as if the place suited him admirably. Of course this is only to winter certain birds, for I object strongly to keeping birds in cages as a rule. I think they should be in outdoor aviaries as far as possible.

It is very interesting to watch the birds bathing. The Crake stands in the water and jerks up and down just like a

duck washing, and indeed most of the wading birds wash in this way, the Reeve being the only one I have seen flapping its wings to wet itself.

I had a very large pan in the aviary which only the Red-crested Cardinals would use. They used to look very funny standing in the dish with only their heads above water, but they never seemed to be at all alarmed. The Brown-throated Conures, Rosellas and other Parrakeets simply walk through the water about ten or twelve times, before they fly up to dry themselves.

I wish Parrots were not so destructive to plants and trees for they are extremely nice birds. A very large Alexandrine I used to let out in the garden would cut through stout branches as easily as one could break a match. He also did his best to destroy an aviary, so I was reluctantly compelled to part with him, although he was the tamest and most affectionate bird I have ever had.

[The fact of birds existing through the winter in a kitchen without apparently suffering any ill effects, is no proof that such a place is well-suited for keeping them in.—ED.]

A PARADISE FOR BIRDS.

[The following interesting account of a "Bird-lover's home," near Adelaide, which was recently visited by members of the Australasian Ornithologists' Union, is taken from the *Australasian* of December 14th, 1901, and has been kindly sent to us by Mr. John Sergeant.—ED.]

"Those privileged to stay there woke in the morning to the song of native Thrush and chatter of Brush Wattle Bird, and standing on the balcony could see, amongst a wealth of roses and imported flowers, what are usually regarded as denizens of the bush in search of breakfast or preparing for a coming brood. Upon one path a little Blue Wren—polygamist of the first rank—led a troop of four less showily attired, but equally perky wives, and selfishly repelled them when some delicacy was found; female rights, on that occasion, being evidently absent from his creed. Where scarlet bottle brushes swayed, the New South Wales Honey-eater—a pretty creature in black and white and yellow garb—clung closely to their branches, and probed the blossoms for the nectar there. A leaden-coloured one was on Tecoma blooms; a third species, the "greeny" of one's boyhood days, investigated the opening flowers of the silky oak. The singing variety was never far away, its double notes coming at intervals from melaleuca boughs that overhung a portion of the drive. Whilst one watched, a Black and White Fantail, whose voicings had been heard throughout the night, lit near one's feet, seized some (to us) invisible prey, passed to verandah post, and plucked a cobweb there, then went nest-building in a ficus tree. Another glance showed Crested Doves at large, whilst White-backed Magpies' notes and chuckle of the large Kingfisher proved the presence of those birds. The "voice of the Turtle" was

constant in the land. This was the keynote to what later day revealed. Birds constantly reminded one that they were about. The place had many feathered denizens, whom experience had taught that they had nothing to fear, and that their presence was most welcome. Some of the species were elsewhere in the district regarded as extinct.

"Upon several trees were fastened sections of a hollow log, a bunch of grass, or other provision made for hidden nest. The tiny Martins which are usually found nesting in hollow trees in the bush were here in hundreds, dwelling happily in suspended bamboo stems, in the sides of which holes had been cut, so that each section of the jointed stem was usable for breeding purposes. Every available nook or ledge was occupied by them too—even a large funnel suspended on a shed wall had been utilised. It was a pretty sight when the funnel was gently taken down to see the little hen bird remaining on her clutch of eggs and looking at her visitors as if wondering what this disturbance of her home could mean. An old watering-can, some six feet from the ground, had been made use of in a similar way, but here the female had not completed her tale of eggs, and resented being gazed upon, preferring rather to watch our actions from a few yards away. The nest took up a large portion of the can, and had been made of gum leaves and some grass, that in the funnel being principally of the same materials. How rapidly Tree Martins find a new nesting-place was shown when, a few days before our visit, some pierced bamboos were suspended in a new piggery, close under the roof. Not many hours elapsed ere each hole had its occupants, who were now bringing mud pellets for their architectural purposes. A Shrike Tit, whose nest is usually not easily found, had made a home above the kitchen roof.

"The farm still bears some of the natural vegetation of a damp place. Along the creek a thick fringe of timber flourishes—tea, gum, and other native trees—and where some large aviaries are built the reeds grow thickly enough to afford shelter to the Bronze-wing Pigeon, who, with head laid sideways on the edge of the nest, permitted inspection of its home. (The male bird was sitting at the time.) They grow also where two Cape Barren Geese marched proudly at the head of a brood of goslings, the male bird quacking and his mate replying with porcine grunt.

"No shooting is allowed in this bird refuge; all living creatures excepting rats, mice, and sparrows, are encouraged there. In a conservatory lay basking a fine brown snake (a *Denisonia* of lighter hue than the species usually seen near Melbourne); a smaller one was where some Pheasants had a home, and seemed quite undisturbed when one pugnacious bird, endeavouring to fight with an annoying Bald Coot, his next door neighbour, through the netting trod close beside its head. The snakes keep down the mice and such "small deer," who otherwise would overrun the place, and hence are looked upon as friends.

"A pair of stately Black Swans reared two fine cygnets during the last season, their offspring now being as large as themselves, and all roamed at liberty about the yards or plunged into a tank with evident enjoyment. To enumerate every native bird which still clings to the spot would need much patient watchfulness—new seasons bring new kinds, and weeks would be necessary to find out all that now are there. Amongst those heard of, but not seen, were visitors from the interior of our continent, who usually find haven here when drought-driven from their inland

haunts. Their coming is delayed this spring, no doubt on account of the more favourable season in the north. The tameness of all the birds that were seen was very noticeable.

"For those birds which would stray away large aviaries, with many sub-divisions, have been erected, and it takes some hours each morning to attend to the wants of their occupants. Parrot and Finch, Wonga Wonga Pigeon and Peaceful Dove, Wood Duck and Eagle, a pretty Kestrel, and a covey of Brown Quail, all welcome eagerly the hand that feeds. Many of them come closely to the netting when any one appears.

* * * * *

"The Shell Parrots suggested peace in all their ways. Their nests were in some hollow limbs, and a little head would now and then emerge from a knothole to look around. When the hen came off one nest, the male bird drove her back again; but the majority were "kissing" or whispering sweetly to each other. Barraband and Port Lincoln, "28" and Cockatoo, Rosella and Betcherrygah were amongst the Parrots and Parrakeets kept; of larger kinds the White, Long-billed, Rose-breasted, and other of the Cockatoo clan were there. In another portion of the aviary, a little Tribonyx (or native hen) was laying. She had Maned Geese as her near neighbours, some Assam Pheasants, and a young Muscovy Duck, which had deserted its kin, bearing the latter company. The Queensland Green Pigeon cooed, and seemed thoroughly at home. How many birds are in captivity is hard to discover, since the bushes and reeds are not easily seen through. One secret of success in keeping all these birds is that they have abundance of room, and that natural surroundings are provided as far as practicable; another is that those who keep them love the task of caring for them, and would as soon think of neglecting their own kin as not supplying the wants of the birds."

BIRD NOTES.

Mr. J. H. Gurney contributes his annual Ornithological Notes from Norfolk and the north of Suffolk, to the March number of the *Zoologist*. Among the rarities noted during the year (1901) are the following: Lesser White-fronted Goose in January; Golden Oriole, White-winged Terns, Goshawk, and Orange-legged Hobby in April; Woodchat Shrike in June; Caspian Tern and Avocet in July; Blue-throat and Roller in September; Sabine's Gull and Tengmalm's Owl in October; and Allen's Gallinule in December.

A specimen of the Yellow-eyed Babbler (*Pyctorius sinensis*), which species was ably described in our last number by Mr. E. W. Harper, has recently been deposited at the Zoological Gardens by the Honble. W. Rothschild. It is the first example received by the Society since 1868, and is well worth inspection. It occupies a spacious cage in the Insect House.

On March 28th last the Zoological Society received a consignment of

ten valuable Indian birds, presented by Mr. Harper, all of which are new to the collection.

Our space will not permit of our giving more than a bare list of the species: Brown-headed Stork-billed Kingfisher (*Pelargopsis gurial*); Eastern Calandra Lark (*Melanocorypha bimaculata*); Eastern Linnet (*Acanthis fringillirostris*); Pale Rose-finch (*Rhodospiza obsoleta*); Glossy Calornis (*Calornis chalybeius*); Small-billed Mountain Thrush (*Oreocincla dauwa*); Large Pied Wagtail (*Motacilla maderaspatensis*); Ashy Wood-Swallow (*Artamus fuscus*); Bay-backed Shrike (*Lanius vittatus*); Indian Great Reed-Warbler (*Acrocephalus stentoreus*).

All who are interested in the migration of birds should carefully study Mr. W. Eagle Clark's paper entitled "A Month on the Eddystone," which appears in the April number of the *Ibis*. By residing with the lighthouse keepers, cut off from the world for a whole month, Mr. Clark was able to make observations of the highest importance in the study of this remarkable phenomenon.

The cleverness of the Grey Parrot is well known, but we think that specimen below described must almost beat the record. The following is a cutting from *Nature* of December 12th, 1901:—

"My daughter had a very clever young Grey Parrot, which, unfortunately, died on the first of this month, after a severe illness of three weeks' duration. He was brought to my daughter straight from the nest in Africa, and had he lived another month would have been about two years old. He was a singularly clever bird, and of a charming disposition to his friends, though very shy and inclined to be hostile to strangers. He was an exceptionally good talker for his age and showed remarkable intelligence in fitting his sayings to the occasion. He was very fond both of fruit and sugar, but I never knew him ask for sugar at dinner or apple at breakfast. For nuts, which were kept in a cupboard in the room, he would ask at any time; and in many similar ways he showed a vivid association between the words and the things represented by them.

"But the remarkable, and to me novel, power which he displayed at so young an age was that of acting. He played with a bit of wood exactly as a clever little girl plays with her doll. For example, he would take the wood in his claw and would say to it, imitating the voice and gestures of my daughter or of one of the servants, 'What! are you going to bite me? How dare you? I will take the stick to you!' Then he would shake his head at the wood and say, 'I am ashamed of you! Whom did you bite? Go on your perch!' Then he would take the wood to the bottom of his cage, and putting it down on the floor would hit it with his claw several times, saying, 'Naughty! I'll cover you up, I will!' Then he would step back from it one or two paces, put his head on one side and say, as he looked at it, 'Are you good now?'

"No attempt was ever made, deliberately, to teach him this or any other of his histrionic performances. He picked them up spontaneously from his own observation and memory.

"It would interest me much to know whether this capacity for acting is often found in Grey Parrots.

"The Athenæum, Pall Mall, S.W.

D. R. FEARON."

CORRESPONDENCE.

GOULDIAN FINCHES.

SIR,—Perhaps Mr. A. E. Boothroyd may be interested to hear my experience with Gouldians, or, as they are called in their native Queensland, "Painted Finches."

I had two of these beautiful birds given me in September or October (I forget which month) of 1899. I placed them in a large cage, 3 feet long, 3 feet high, all wire, small mesh, and settled them in the warmest corner of my birdroom. In November of the same year, while I was away from home, one of the birds was found disabled and was put in a little cage to be nursed, but it died during the night. It was sent to a naturalist to be examined, and was found to be perfectly healthy in every respect, but its leg had been broken, and it probably died from shock. I believe both birds must have been cocks, and they probably fought—both birds had the long pin-feather in the tail. I do not know if the cocks of this species are usually quarrelsome.

I put a pair of little Indian Silverbills in the cage to keep the surviving Painted Beauty company, and they have always agreed perfectly. One unfortunately died lately, but the remaining one and a tiny Avadavat live with the Gouldian in perfect friendship.

I supply them daily with a liberal quantity of small Indian millet, white millet, and millet in the ear. I add a small pan of canary seed, but as this never decreases I conclude none of the birds in the cage care for it. The Gouldian lives almost entirely on the Indian seed and that in the ear, but I *have* seen him partaking of the white millet. I sometimes scatter a little common grass seed on the sand, and it disappears. I also occasionally put in a little bit of sponge cake or preserved yolk, but I do not know if the Gouldian eats any of these delicacies. I use sea sand and give cuttle bone; also plenty of fresh water, one pan large enough for the birds to bathe. I must add that my bird seems perfectly happy without a mate, and sings his bubbling song constantly.

The temperature of my room is never over 55 deg. in Winter, and very often lower: the glass went down to 32 deg. on two nights during the cold weather of last month, but the Painted bird seemed in no way to suffer or to be the worse for it. I am told by a friend, who has lived for many years in N. Australia, and kept them there, that these birds can stand frost much better than damp, and sometimes get it in their native land—although it seems strange to think of frost in the tropics. I cover the back and one side of the cage to protect him from any possible draught when the window is opened in the birdroom.

I must not boast of my bird, but he really is a beauty: seems healthy and strong, and is in most magnificent plumage. The blending of colours in this species is truly marvellous, and I believe impossible to *exactly* reproduce on paper, although Mr. Frohawk's picture in Dr. Butler's useful book on "Foreign Finches" is remarkably lifelike.

EMILY WEST.

GOLDEN PHEASANTS WITH QUAILS; WINTERING BLACKCAPS, ETC.

SIR,—I see from some of your past issues that one of our members—Mr. Rothera (*)—kept his Golden Pheasants with Quails—Californian and Chinese—and many other small aviary birds. Would this be practicable in a well-planted aviary fifty-seven feet long and about six feet wide? Would there be any danger of the Pheasants killing birds smaller than themselves?

Are there any instances of the successful wintering out-of-doors of Blackcaps, Redstarts, and Gouldians? G. C. PORTER.

The following reply was sent to Mr. Porter :

I have not tried the experiment of keeping Golden Pheasants and Quails together, and therefore cannot speak with certainty. I am inclined to think that in an aviary of the size you describe it would be safe. Cock Golden Pheasants vary immensely in disposition. I have had most harmless cocks which never touched any other Pheasant. I have had at least one which, in the nesting season, has scalped and even killed his own hens, and other Pheasants left with him, but not in so large an aviary as yours; and since I have constructed my large Pheasantries, with hedges and shrubs and small trees in them, such disasters have almost entirely ceased.

O. E. CRESSWELL.

I have been told of a Blackcap having been successfully wintered out-of-doors. Personally, I should be exceedingly sorry to put a Blackcap to so severe a trial, through which it could scarcely pass unscathed, even in an exceptionally well-sheltered aviary. Moreover, some of the Blackcaps in confinement in this country come from the continent, and seem to be decidedly less robust than our own summer migrants.

Redstarts and Gouldians are delicate as regards temperature, and to attempt to keep them out of doors through an English winter would, in my opinion, be an act of cruelty.—R. P.

PENNANT'S PARRAKEET.

SIR,—Would you kindly give me advice as to the treatment of my Pennant Parrakeet? I have had him over a year, and when purchased he was in brilliant plumage. Last August he began to moult, lost all his bright colour, and still continues very shabby—not like the same bird. He came from an outdoor aviary, and had been fed on oats, hemp, and canary-seed. I have given the same, with the addition of a little "Hyde's Parrot Food." The bird seems in perfect health, eyes bright, and very active; bathes two or three times a week. He has plenty of wood to bite up, and a bit of rock salt in his cage. He lives with a Yellow-rumped Parrakeet, and is always lively and bright; but his plumage is *very* shabby. I don't know what to give him in the moult. M. HAMILTON.

* See Vols. II., III., and VI., pp. 6, 32, and 101, respectively.—R. P.

The following reply was sent to Mrs. Hamilton :

Your letter has been forwarded to me, but I am afraid I cannot help. I can suggest no improvement in the food : you can add millet if you like. It is one of those cases where, the cause of the mischief being unknown, one can suggest no remedy.

I have known the same thing happen to aviary-bred birds : the first plumage was quite sound, but a sort of French moult came on in the second year. I presume the bird has been kept out of doors and without artificial heat.

You can try a few drops of Parrish's Food in the water, but I do not expect any amendment. If one could administer sulphur, it might do some good (c).

F. G. DUTTON.

THE CALIFORNIAN QUAIL.

SIR,—Referring to Miss Alderson's interesting article on page 136, all the Old World Quails, so far as I am acquainted with them, are true ground birds; but the American Quails belong to a different sub-family. In the wild state, the Californian Quail (*Lophortyx californicus*) does not seem to perch *very much* on trees, but in an aviary a good specimen invariably takes freely to the perches; and a beautiful addition it is to a *large* mixed aviary, from which, however, it has usually to be summarily expelled on account of its quarrelsome nature. On one occasion, to mate with an odd female, I obtained a fully adult aviary-bred male which had been reared in a "run," and never saw a perch until it reached my hands. This bird kept almost entirely to the ground, and for weeks did not attempt to follow the female to the perches, and never took kindly to them.

Not only in the aviary, but also in the wild state does this species occasionally nest in trees. I suspect that, as with Ducks, this exceptional site is resorted to only when the bird is not satisfied with the privacy or safety of the quarters provided for it on the ground, or (in the wild state) has been alarmed or had its nest destroyed by some ground creature.

The average number of eggs laid by the wild bird is about fourteen; occasionally the number found in a nest is much greater, presumably produced by two birds.

As a rule, the female broods the young; but, if she should go to nest a second time, which is probably the exception rather than the rule, it is her custom to hand the first batch over to the care of her mate while she sits on the second clutch of eggs.

REGINALD PHILLIPPS.

IDENTIFICATION OF WAXBILL.

SIR,—I have a little Waxbill, the correct name of which I am a little doubtful about, and would be glad if you could enlighten me in the *Avicultural Magazine*. It is the size and shape of a Cordon Bleu. Colour—olive brown, lighter underneath; bill red, with black line on top of upper mandible; red line over eyes; rump and tail red. I had thirty pairs of mixed small birds from an importer last spring, and amongst them were

(c). If Mrs. Hamilton will be advised by one who has never kept Pemmants, she will not give Parrot-food; but will give a few mealworms.—A. G. B.

two of these ; one died soon after arrival, but the other lived outdoors all the summer, but was taken in at the beginning of November.

C. P. ARTHUR.

[The above description evidently refers to the Sydney Waxbill (*Egitha temporalis*), but to describe the rump and tail as red is not quite correct, as this colour is confined (in this region) to the upper tail coverts.—ED.]

NOTES ON SHĀMAS.

SIR,—Many of our members will, no doubt, be able to confirm my opinion that the Shāma is the songster *par excellence* amongst foreign birds. Those who have heard one can imagine the grand variety concert, given by an assembly of some twenty of these birds at the same time, each singing as only a Shāma, in A. 1 form can. It has been my good fortune lately to hear such a concourse.

The tame and docile manner of these birds, when once accustomed to their owners, makes them loveable pets, but at the same time they have plenty of spirit and are well able to hold their own if put on their dignity.

A Shāma can give expression to it's movements by it's tail, as no other bird can. He is always on the alert for a mealworm, and will fly out of his cage for one instantly the door is opened. As these birds are so tame, they require little teaching before they may be allowed to fly loose, and they will very soon go in and out at will.

Being so bold it is no wonder that they should be used for fighting by the Indians ; and they are pitted against one another in large cages, where they fight until one is killed ; as in the old cock fights indulged in by our forefathers. So pugnacious are the cocks that they will not allow a hen of their own species to be caged with them, and I would never advise anyone to put two Shāmas together in a limited space.

The hens are much more sombre in colour than their mates and they sing a little, but the song is more disjointed than, and not so free and voluminous, as that of the cock.

When Shāmas are young it is difficult to distinguish between the sexes, but after the moult the difference is very evident.

It is very amusing to see two or three Shāmas on the aviary floor, while the cages are being cleaned out, having a go at one another, with tails erect and singing at full concert pitch. I have spent many a pleasant hour lately listening to my Shāmas singing. I have heard them at three o'clock in the morning, and at midnight, or until the light has been put out.

Shāmas are very little trouble to feed ; they like a bath very much, and keep themselves beautifully clean.

W. OSBALDESTON.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

AVADAVAT. (The Honble. Lilla de Yarburgh Bateson). Found dead; apparently quite well an hour before.
[Death was caused by concussion of the brain].

GOULDIAN FINCH. (Mr. H. E. Goddard). In owner's possession only ten days, ailing more or less all the time. Fed on millet (white and spray) and canary-seed.
[Pneumonia was the cause of death].

GOULDIAN FINCH. (Mrs. Gorter). Had been treated for egg-binding, and apparently revived: ate heartily and seemed all right up to 10 p.m., but died at night.
[There were no symptoms of egg-binding, but the lungs were much inflamed, which was the immediate cause of death].

DEAD BIRD. (Mr. Rothera).
[Was so decomposed on receipt, that a satisfactory examination was not possible].

TWO DOUBLE-BANDED-, and two MASKED-FINCHES. (Mr. Hayward W. Mathias). Owner had had one Double-banded-, and one Masked-Finch in unheated outdoor aviary all winter. Mates were obtained, in apparently good health. Each pair was put in a separate cage, and cages put in a greenhouse with an average temperature of 55 deg. Fah. at night, and day temperature not exceeding 80 deg. Fah. Fed on millet- and canary-seed. Had no bath. Atmosphere dry.

[Cause of death was enteritis, and the loss of all four suggests a contagious form of disease. But all the birds were subjected to extremes of temperature, and a variation of some 25 deg. between day and night temperature is excessive and prejudicial. The drinking-water would have a similar variation in temperature which would, in all probability, cause the symptoms named. The change from your cold aviary, and the hot shop, would be equally trying for the original birds and the new arrivals].

YELLOW BUDGERIGAR. (Mr. C. Dell). Purchased on March 15th, apparently in good health: seemed dull on the 18th, and died on the 20th.
[Death resulted from concussion of the brain caused by injury. It was a hen].

CORDON BLEU. (The Honble. Mary Hawke). Died day after purchase.
[Concussion of brain was the cause of death].

AVADAVAT, hen. (The Honble. Mary Hawke). Been in outdoor aviary two or three years, and has bred. Looked puffy, and was treated for egg-binding. Was taken in for two days; seemed better, and was put out, but died same day.
[Pneumonia was the cause of death].

DEMOISELLE CRANE. (Major Fothergill). Had been purging some time.
[Cause of death was tuberculosis of the bowels]. ARTHUR GILL.



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AUGUST AMAZON PARROT.
Chrysotis augusta

THE
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JUNE, 1902.

THE AUGUST AMAZON.

(Chrysotis augusta).

By the Hon. and Rev. Canon DUTTON.

This Parrot is the largest of the Amazons. The illustration, taken from Mr. Herbert Goodchild's admirable water colour, renders a description of the colours of the bird unnecessary. But as it conveys no impression of its relative size I may as well note the dimensions given in the British Museum Catalogue: "Total length, 19 inches, wing 11, tail 7, bill 1·7, tarsus 0·75."

I should have said Guilding's Amazon was as large, but the Catalogue gives its length as 17 inches.

These two birds are very much larger than any other Amazon. Though Versicolor with 16·5 inches comes near Guilding's in size.

My bird fell when its companion was shot, and was picked up quite uninjured. As the companion proved on dissection to be a male, the presumption is that mine was a female. Some people think female Parrots are much gentler than male birds. If so, my bird may help to establish the theory. For though it was caught adult, it was very tame, and quite willing to be played with, and soon learned to say several words. It may have been young when it was obtained, for Mr. Goodchild tells me it has grown much darker since he painted it, that the skins in the Natural History Museum are darker, and that one deposited at the Gardens, but which died soon after its arrival, was darker. Certainly Mr. Goodchild's drawing was a most faithful representation of the bird when I had it.

It is impossible to draw conclusions from one bird, and I am afraid more are not likely to be soon procured. They are entirely confined to Dominica, and are not common there. But I believe a new road was cut in the forests, which revealed that

they were not quite so rare as was supposed. Mr. Branch sent home some dozen skins to Mr. Rothschild. But there seems to be no means of getting nestlings, therefore the chances of getting live birds is always doubtful.

It is curious that Guilding's Amazon does not seem to be a good talker, while a Versicolor which Lady Thompson got, and which also must have been caught old, grew tame and talked soon after she acquired it. I found my *angusta* rather noisy, like most Amazons, but *the* drawback to them as cage birds is their great size. They want a cage as large as a Macaw's.

THE EUROPEAN BEE-EATER.

Merops apiaster.

By REGINALD PHILLIPPS.

(Continued from page 132).

What happened during the very bad fogs of the winter I will not venture to describe. It was only with the greatest difficulty that I could keep their fragile little bodies and souls together. Indeed, they continuously oppress me with the feeling that they may slip through my fingers any day. Some of our members will ask why I did not feed them a little by hand during the short winter days. I found that, Cuckoo-like, if fed on their perches, they would sit side by side clamouring for food, waiting for me to feed them, but would *not* come down to feed themselves; so that, except when compelled to act otherwise, it was the greater kindness to leave them alone. But times without number I was compelled to hand-feed them, usually by handing the food to them in a white china dish which shewed up the colour of the cockroaches, but sometimes to the extent of placing them on the carpet in the lightest spot, and even carrying them in my hand right to the window and holding the food to the tips of their bills; or doing the same with one hand while I held a lamp to their faces with the other. I may just mention that opening the doors of their cage at one time was dangerous work, as they dashed off against the window, or, at the best, after a rapid flight round the room, like Mrs. Leslie Williams' Parrakeet (Vol. VII., p. 227), would quickly alight "without discrimination and equally without dignity"—on the floor or anywhere else as luck might have it.

The second difficulty was that I found their eyes were so focussed that, when pecking at their food, the point of the bill

would fall short of it's object by about one-third of an inch. My theory is that, descended from ancestors who for countless generations had been in the habit of taking their food while flying at no inconsiderable pace, they instinctively commenced the action of closing the bill while the prey was still ahead of them. In a few weeks' time, however, this difficulty wore itself out to a certain extent; but it occasionally re-appears when the birds are nervous or in a bad light. The female, to this day, cannot seize her food out of a dish except in a very good light; and, when I hand them a cockroach, they more often than not seize and endeavour to swallow my finger or thumb.

Not altogether unconnected with this feature (eye-focussing) is another point, concerning which I should like to raise a question, and invite the criticism of our scientific members. Extending backwards from the mouth there runs a black band right across the eye and terminating in the ear-tufts. Often as I have looked at the pictures of Bee-eaters, nothing in connection with this black band has ever struck me, although I have often wondered why so many species should have a similar line, or a dark lore spot. But when I am having a little chat with my Bee-eaters, and they, sitting side by side on a perch as is their wont, and with but a few inches between us, are looking me straight in the face, with the crown flattened and the bill a trifle raised, the line of the black bill, and the eye, and the black band seem so closely connected that it is impossible not to feel that the line, in some way, helps them while pursuing their prey in the air, or saves their eyes from dazzling reflections. Probably a brilliant African sun, if allowed to fall on a bright shining lore, would have dazzled the eye, and might possibly have affected the sight, or it might have reflected the light so as to mar the true aim of the bird when in pursuit of it's prey. The dead-black lores, on the contrary, would not reflect, but rather absorb, the brilliant rays, and may be something more than an unspeakable comfort to the birds. Perhaps the birds look down the black lines when taking aim as through a telescope or along a gun barrel! The projecting brows—or rather the deep-set eyes—afford a further protection to the sight.

The Bee-eaters are verily birds of the sun. Not only do they require a brilliant light to enable them to take their ordinary food with comfort, but the Bee-eater in the sun-shine is a different bird from the Bee-eater in the gloom. On a dull day, they sit huddled together in a lump, afraid to move, taking their food in fear and trembling—and an insufficiency of that—and

calling to me in distressful, dejected tones. But when the sun bursts into their cage, they are alive at once, and as happy as kings. Then it is that they go down to the ground of their own accord, scoop up stray morsels of food, and scramble about in a manner which adds intense life and interest to Mr. Layard's happy description of this species on the ground, already quoted (p. 104).

Although so fond of sitting together upon a perch, it must not be supposed that they are dull and lifeless birds. Their heads are always on the move, their eyes are always on the look-out, their senses are always on the alert. I never can catch them napping, either by night or by day. They can distinguish the sound of my footstep from that of any other person in the house; and in the dead of night, when I creep down with unslipped feet to visit a mouse-box I have in the dining room, they will detect and whistle to me before I reach the room, while the mice, now ultra wary, will fail to notice my presence until my hand is upon the fatal box. With the back of the head depressed, and the bill slightly raised, not a fly can wink nor a gnat blink without their noticing the movement, and the neck and body will become lengthened out to nearly double the length and a quarter of the circumference of the figures depicted by our artist in the fogs of October.

I have referred more than once to the voice of this bird. It may best be described as a warbling whistle, with almost endless variations. They talk to one another and to me as plainly as plain can be. And not only have I never heard them utter a discordant note (I suppose I must except the 'snarl,' presently to be mentioned) but every note I have heard has been pleasing, and many of the notes are sweetly musical. We are told that the call-note of the species is *quilp*. To this I do not fully agree. The *quilp* or *quip* note is usually a note of alarm, surprise, or interrogation. I come back from Church, and peep into their cage with my tall hat on, and it is *quilp*. A cat appears on the window-sill, and it is *quilp*, or *quip-quip* repeated rapidly. The greater the excitement, the more quickly and sharply is the note brought out, and the more like *quip* or *quick* as distinguished from *quilp*, sometimes even repeated four times or oftener, as rapidly as the notes can be uttered. The ordinary call-note is Q (Kew), with modifications and variations. My male has not yet attempted to sing, but, should he ever do so, I should be surprised if the song were otherwise than musical and

pleasing.* He is much more talkative than the female, and is the first to commence the conversation or sound the alarm.

For a long time after their arrival, my birds seemed to be totally unacquainted with the not unusual accomplishment amongst birds of drinking cold water for the purpose of quenching thirst. Nevertheless the sight and sound of running water have always more or less excited them. Knowing that some non-drinking birds obtain a certain amount of moisture by eating fruit or green-stuff, I offered these to the Bee-eaters, but mostly with negative results. All ordinary green-stuff has, so far, been refused, but I have scored a partial success with grapes cut up into small pieces. For a little while, both more or less accepted them when offered by hand; but before long the female refused them, and has continued to do so ever since. The male, on the contrary, has regularly taken to them; they are associated in his mind with water; and when I pour water, or even paraffin into the stoves, they both become excited, the male for grapes, the female for water. The water dish on the floor of their cage they never touched, but I have an open glass receptacle suspended close to one of their favourite perches. With a small house water-can, I slowly pour the water from a little height into the glass, emptying the latter and repeating the operation as often as time and patience will allow. The female seizes the mouth of the can and endeavours to swallow it. A certain amount of water gets on to her face, and then she flutters her feathers after the manner of a bird washing, and bangs her bill again and again with such violence that one wonders which will break first, the bill or the perch. On November 14, for the first time, she touched the water *in the glass* with the tip of her bill, as if about to wash, but nothing came of it. Although she regularly came to the can as described, once or twice a day, it was not until January 2 that she *swallowed* a drop of water. On February 22, for the second

(*) It was on March 31st, a comparatively warm day, that I first heard the "song" of my Bee-eater. He was on a high perch, facing towards his mate, who was a little below him, and was slowly waving his extended wings, and swaying his body to and fro like a Scutari Howling Dervish, as he warbled forth his whistling lay. It was little more than a varied and sustained rippling whistle, with runs and quavers, and was distinctly pleasing. It reminded me of a person singing a song with really a good but untrained and uncultivated voice. When one remembers how often the song of the hand-reared Nightingale is a failure, one must not be too hard on the first efforts of a bird who has never seen or heard one of his own kind (save his wife) since the day when, as we suppose, he was taken from his parents' nest-hole in the banks of the Danube. Regularly since, he has occasionally broken out with snatches of song as, with waving pinions extending and contracting, he goes for Mrs. B. and pursues her with open mouth and un-lover-like snarls as she continuously avoids his clumsy bucolical advances.—R. P.

time, she lowered her bill into the glass, and made a show of washing ; and on the 24th and following days she really gave her face and neck a respectable wetting. Nevertheless it was not until April 3 that I saw her touch the water-glass at any time other than when I pour in the water.

It was on March 24 that she, for the first time, attempted to drink *out of the glass*. She did not know how to drink ; all she managed to do was to lower her open mouth into the water, keep it there for a few seconds, and then lift it up to a nearly horizontal position, and swallow whatever moisture might remain in her mouth. The more I watch this bird, the more I feel that, in the wild state, the Bee-eater *must* scoop up water from the surface *while on the wing*. Their fondness for river banks for breeding in has often been noticed.

More than once the female has been seriously threatened with fits, which so far I have happily averted by dosing her, by hand, with fluid magnesia ; but it is a most difficult operation, as swallowing any fluid seems to be a difficulty. Even when feeding, they do not swallow without a great deal of fumbling and dropping of food. Now, on the appearance of any bad symptoms, I dip cockroaches into the magnesia and give them to her as wet as possible, and for some time continue to dip them in water that she may have the benefit of the moisture. It is worthy of notice that the male, who at one time was most seriously ill, has for a considerable while been in a fairly robust and vigorous condition—and he obtains moisture in the form of grapes, eating a limited quantity every day. Whereas the female, who for so long would never drink, and persistently refuses grapes, is not nearly so healthy a bird ; but she has improved, I think, since she has taken more kindly to the water. I conclude that in their wild state they never drink water, unless on the wing, and “wash” in the falling rain ; and I suppose they do not partake of fruit. But they seem to need moisture, and probably, like Swallows, as already suggested, drink (and perhaps bathe) as they skim over the surface of the water. The shape of the bill might seem to militate against this theory ; but, when I observe how greatly they prefer *scooping* up their food to picking it up at the point of the mandible, I feel that it is not at all an improbable supposition.

For the most part they seem to be remarkably amiable birds, although, when ruffled by the presence of strangers, or a strange bird, or when they fancy they may be in danger, like dogs, they erect the “bristles” along the back of the neck,

and open their bills in a threatening manner with a not too musical snarl: but their bark is worse than their bite. These little failings of temper, it seems to me, are often only evidences of the natural nervousness of a species which has no power to resist attack. More than once I have tried to keep an odd bird or two in their cage, but it does not do, for the visitor takes the best of the food, and the Bee-eaters evince a disinclination to descend to the food-saucers at all.

Towards the middle of March, the fogs dispersed, and daylight appeared, and I swung back their cage a little for the benefit of the room. The male then took it into his head to sleep with his back to the window; and, on putting them to bed in the evening, I placed him in his usual place, next to the "wall." But he would not consent to this; and I found that, whatever the circumstances, he must have his wife on his *left* side; and a day or two later when the patient little woman, not accustomed to the new order of things, inadvertently approached his right wing, the Tartar threatened her with all kinds of pains and penalties, and I had to hastily remove her to his left wing, when he received her with his usual affection.

The great difficulty with birds of a nature like that of the Bee-eater is the food. My birds had been so "saturated" with mealworms before I received them that I found it necessary, if they were to be reared, to practically stop the mealworms altogether, although they devour them greedily. There is something about the mealworm which seems to have a like effect on certain species of birds as drinking, gambling, smoking, etc., have on some persons—the more it is indulged in the more the craving impels them to indulge further, no matter how certainly and surely they are travelling to destruction.

Nothing but total abstinence is of any avail in such a case, be it human or be it bird. The mealworms had to be stopped; and, as cockroaches were very scarce (until much later, when a kind friend came to the rescue), and as no spiders nor insects were obtainable, I had to fall back upon meat. Insectivorous food is placed in their saucers, which is never touched; but of cooked meat, carefully scraped, they sometimes take a good deal, occasionally deserting it in favour of egg-flake. As already stated, they seem to prefer scooping up the food off the ground to taking it out of the food saucers, and so I regularly scatter the flake over the bottom of the cage. Raw meat I give very rarely and very sparingly. An occasional dole of sultanas carefully cleaned and cut up is usually well received. Cockroaches I

supply as freely as I can obtain them; these now, whenever I can spare the time, are regularly dipped in water, to the benefit, I think of both the birds.* In the country, during the summer, many other insects might be obtained. Milk sop would be good for them, but it is so squeezed and banged about that nothing remains to be swallowed.

In February, it was suggested by our practical Treasurer:—"Have you tried *bees*?" Singularly enough, I had never so much as thought of them in connection with my own birds; but having received the idea, I soon obtained the bees, and, on March 1, offered the first supply to my unsophisticated babes. They, not acquainted with them, and accustomed to gulp down cockroaches without any preliminaries whenever they could get them, immediately gulped down some bees—and the female got stung somewhere inside. How the poor bird—all too late—banged her bill against the perch! This proves that Bee-eaters have no power (I have seen the contrary suggested) to resist the effects of a sting. They make their prey harmless, as already described, by banging it against their perch, and by passing it backwards and forwards between their tight-closing mandibles. For some weeks afterwards, the female would seize the bees and bang them to atoms, but would rarely swallow them; and the male seemed less and less inclined to take them. This was more than unfortunate, for the change of food would have been most beneficial; but they had acquired a taste for other things, and rejected such plain and simple fare—a caution to parents. Eventually, however, a happy thought came to my assistance. I dip the bees in water, and now both birds take them pretty freely—but never hurriedly as on the first day.

They regularly cast up the indigestible portions of the cockroaches in the form of black oblong pellets.

In a really good light, they can pick up a very small cockroach without difficulty. And, as may readily be imagined, they are by nature very good "catches."

They are exceptionally clean and inoffensive, not causing the slightest annoyance in the warm dining-room, although rather untidy, throwing morsels of food about the vicinity of their cage.

I do not consider them to be specially intelligent.

They seem to be particularly sensitive to cold.

They cannot hop, and have to fly when changing from one

(*). Since I commenced the practice of wetting the cockroaches before handing them to the male, his appetite for grapes has moderated.—K. P.

perch to another. On the ground they crawl and scramble, for their legs are much too short to enable them to run.

They are nervous and timid by nature ; and, although my two are so tame, their inherent wildness would impel them to take a rapid departure should they have the chance, notwithstanding their daily and hourly protestations of affection.

The two birds are wondrously fond of one another, and cannot bear even a temporary parting ; and I cannot help thinking with apprehension of the advent of old Father Time with his scythe—for what will the survivor do ! Human beings have to bear such partings, but they can look forward to The Better Land. But not so the birds, whatever future there may or may not be in store for them. Some lonely birds will take up with a kindred spirit, but the Bee-eaters seem to be so different that one cannot fancy them taking to any other kind : they are all in all to one another.

And now I must draw my long story to a close—with a moral :

“ Let no man take unto himself a Bee-eater unless he is prepared to take care of it.” It will be gathered from what I have written that to take care of a Bee-eater is a serious matter. But, on the other hand, it is impossible not to grow fond of little helpless creatures who trust in you and look to you for the supply of every want. My Bee-eaters are *the* pets of the house.

Some years ago, a charwoman, who was doing something about the place, referring to some birds, I forget which, said, “ Why, Sir, you take as much care of them as if they were babies ! ” I turned upon her with an awful look of horror and indignation. “ *Babies !* ” I gasped, “ BABIES!!! *Babies* can be found on every door-step, in every street, round every corner. BABIES ARE COMMON!!! But my birds you cannot get for love or money. *They are RARE!!!* ” The poor woman was flabbi-gasted. She was the mother of a goodly crew, and outraged maternal feelings must have utterance, although she was greatly impressed with the force of my remark, which came upon her with startling freshness. “ Well, Sir, babies *are* common I suppose ; *but we mothers set great store by them* ” :—which is just as it should be.

[SUPPLEMENTARY NOTES, 10th May, 1902.—My Bee-eaters completed their moult towards the middle of April, but even now the secondaries of the male are not fully grown. In general appearance, they are fairly alike. The crown, hind

neck, mantle, etc., of the male are of a deep, rich, almost velvety, chestnut, which passes into the creamy buff of the scapulars; but, in the male, the latter region is of various shades, and edged with yellowish. Lesser wing-coverts, green, the remainder dark chestnut-brown. Forehead, not white, but pale yellow, passing into pale green, the two colours, much mixed where they join, occupying the whole front of the crown. Eyebrow green. A streak of green-blue runs from below the base of the lower mandible, under the black band which covers the eye, and terminates in a suspicion of a white spot—for only occasionally can a trace of the white hinder cheeks be detected in the male, and not at all in the female. Lower back buff, freely interspersed with green feathers. Length of male's bill (culmen) one and three-eighths inch, female's a little less. The yellow forehead of the female contains a few chestnut feathers; the chestnut crown, etc., is not of so deep and rich a colour, and contains a few green feathers; and the somewhat varied creamy buff of the scapulars, etc., is rather more uniform in the female. The yellow throat is more brilliant and extensive in the male, while his black throat-band is less distinct and defined. The black lore-stripe is narrower in the female, and narrower than it was before the moult. The general plumage above of the female is lighter in colour than in the male, but less pure. The eyes of both birds are very dark brown; several times lately, and again this day, I have carried each bird to the window, but fail to detect a trace of the lemon-yellow of the adult.

In their behaviour, up till quite recently, the two have been very different. The male receives me with outspread wing and garrulous tongue, while the female had been quite undemonstrative. Although the singing has been nearly quenched and the courting greatly suppressed by the excessive cold, the latter has been only *suppressed*, and on a warm afternoon breaks out with a little warbling and much aggressive pursuing, during which unfortunately many feathers of wings and tails have been broken. The female was quite unresponsive until about the beginning of May, when a wave of migration-wildness and "looking into space" came over her, which lasted several days, and during which she scarcely fed. She has passed through this phase fairly well, however; and now the two, sitting nearly face to face, will "Q" at one another in a pleasing responsive manner: she seems to have passed from girlhood into the adult woman almost at a bound. Nevertheless I could hardly expect them to lay in a cage, and to loose them in my exposed aviary would

probably be fatal, not only on account of the cold but because they would most likely get hung in the trees. Even if eggs were laid, they would hardly be fertile, as probably such birds would copulate in the air on the wing.

The tips of the long wings, when the bird is well braced up, cross much more extensively than represented at page 105. They remind me of the Hobby in this respect.

There is now no mystery as to the cause of the out-of-bed tumbles referred to at page 132. It would neither be pretty nor anatomically correct to say that the husband kicks the wife out of bed whenever she has the misfortune to be on his right side. Without mincing matters in the least, and without a moment's delay, he now promptly "mandibulates" her off her perch, although receiving her with sweetness and satisfaction when she is fortunate enough to find herself on his left wing.

Only to-night a very noticeable little incident occurred. At the entrance to their bedroom, another perch runs across the usual roosting-perch, close to the side of the cage, and the male often gets on to the wrong perch—the female, on the other, almost touching him, but not with the habitual side-to-side pressure. Usually, at roosting time, I arrange them comfortably (for they cannot hop about the perches like other birds), but failed to do so to-night. Some two hours later I came into the room, and the male appealed to me with great earnestness; but I heeded him not, for it was long after dark, and he was in a very snug place. After a few minutes, finding that I did not take any notice of him, he deliberately flew on to the bottom of his cage, well knowing that I should not leave him there; and in a few moments the two were cuddling together in complete satisfaction. Mrs. Philipps (who was present) all along has most solemnly protested against a little paragraph I had inserted reflecting on their intelligence; and, after such an act, performed after a pause of deliberate reflection—call it instinct or reasoning or whatever you like—I have no option but to withdraw the obnoxious statement. And yet this is a bird—such is the force of habit—who will unhesitatingly eject his helpmeet from the bed if she chances to be on the wrong side.

One of our old friends, probably the father of the Society in respect of age, and still an enthusiastic aviculturist, Mr. Turner, of Cullompton, reminds me that the French name of the genus is *Guêpier*, the species under consideration being "*Le Guêpier vulgaire*" of *Levaillant*. This is a great improvement on our name of "Bee-eater," which prejudices unthinking persons

against a very valuable class of birds, while that of "Wasp-eater" reminds us forcibly of the great service they render to mankind by destroying countless numbers of injurious and harmful creatures.

This evening, while I was engaged on these Supplementary Notes, a letter arrived from Mr. Frank Finn, of the Indian Museum, Calcutta, with an extract from which I will close:—"Many congratulations on the Bee-eater article and plate. The Green Bee-eater (*Merops viridis*) is a very familiar bird out here and much admired."—R. P.]

ON THE STOCKING OF AVIARIES.

By the Rev. C. D. FARRAR.

When you have built your aviary, the next question will be, where to get your birds? I may say as a sort of certainty that you will have to buy your experience. Do not try to get what look like cheap bargains; in the case of foreign birds you will always find them very dear ones. If you can do so, I should recommend you to draw your supplies from the outdoor aviary of some friend or neighbour, as by so doing, although you will pay more, you are likely to get something that will live. It is far cheaper to buy one acclimatised bird at 10s., than ten just come over at 1s. each. In buying of dealers, go to men of repute, following the advice of Buckstone, who, when certain rabid sectaries wanted to hire his theatre, replied, "that he confined himself to the legitimate Drama."

On the question of when to buy? acclimatised birds may and should be procured at any time; but for newly imported stuff the summer should be chosen, as the risks at any other time are enormous. To purchase delicate little finches in early spring or winter is tantamount to throwing your money away.

When is the best time to turn birds out? I should personally always hesitate to do so till, what Chaucer calls, "sweete May"—(though why he so designated that beastly month I never could understand)—has safely passed. Then when a nice warm week of sunshine comes, seize the opportunity and give hostages to Fortune.

Isolate new comers for at least a fortnight, even though they look all right when they come. It is better for the birds themselves, as they have time to get over the hardships of their past life; and it is infinitely safer for your own stock; as, when disease breaks out in a big aviary, it is very difficult to stamp

it out ; whereas, if a bird goes wrong in a cage, why, there you have him.

Do not be above learning. "We can all learn," as Jowett once said, "even the youngest undergraduate." Remember Luther's words to Melancthon : "Tell Philip that he does not know everything in the world." It is wonderful what a lot of useful information can be picked up, if only you will not pretend to be omniscient. S. Paul's words are worth remembering : "Be not wise in your own conceits." What to buy is of course largely a matter of taste and—pocket.

I append a list of birds—some rare and some otherwise—from which, as the horticultural dealers say, we can make a "suitable selection."

The Silverbill. An old and honoured friend, in spite of his sober, snuff-coloured garments. He has the great merit of hardiness. I might say that he is as hard as nails.

The Zebra Waxbill. A charming little bird, but alas ! common. "How can you keep such common stuff ?" I was once asked, "anybody can buy them !" I say, "Happy anybody. Are we to keep nothing but what is rare and expensive ?" Rather let us thank God that there are birds within the reach of all !

The Dhyâl is as quarrelsome as the natives of Sumatra after the pepper harvest. He is a gentleman that, as the gardeners say of certain plants, "needs perpetual restraint." Like a naughty child, he is always getting into mischief, and is like a certain boy I once knew, of whom it was said, you never knew what he would be up to next. As a sly and crafty slayer of small and inoffensive birds he could give points to the Thûgs. Given a nice big aviary all to himself, he will live and prosper, and if you can find him a wife, he will do his best to increase and multiply in the land.

The Cherryfinch. The brave aviculturist will not be content merely with gaudy and showy specimens ; he will experiment with this modest Grassfinch, so-called from his sober colouring. A charming little bird and fairly hardy.

The Scarlet Tanager will always delight and surprise with its beauty ; just as when we sometimes come upon some glorious sunset, we cry, "How lovely !" so shall we do as often as we see our scarlet friend flashing about. The hen is a very rare and difficult bird to light on ; therefore, if you should find one, prize her, for her price is above rubies. She is of sober olivaceous tint above, and yellow on the breast and underparts.

The Bibfinch is a sober little fellow, clad in snuff with a small black bib, and reminds one of a very respectable tradesman with a nice bit in the bank. When I say that he is rare, I have said enough to make some people determined to have him.

The Bichen is quite a pigmy among birds. Gulliver might have seen him in Lilliput. He is among birds what a Shetland pony is to a Clydesdale. I should not advise you to try him too much in the way of climate; but up to a certain point I should say he is fairly hardy.

The Many-color is a most difficult bird to acclimatise. As they sit in a row looking extremely sick and sorry, they always suggest to me the words of the Roman gladiators when they entered the arena, "Morituri te salutans." To those who delight in funerals, when expense is no object, Many-colors will afford every gratification, and, as an old woman once said to me anent something else, "They make a lovely corpse."

The Superb Tanager is a lovely bird, and fairly hardy if you do not expose him to too much frost. If the air should become suddenly too nipping and eager, he will quickly shuffle off this mortal coil. He, again, is lovely even in death; and if you are of the same opinion as an old lady at Filey, who said of a poor young lady who was drowned there, and whose body was afterwards found, "Ah, but it is nice to have a dead body," then, even in your sorrow, you will find consolation in one who is beautiful even in death.

The African Firefinch. Described by some as "not perfectly hardy." I have kept these birds in a large outdoor aviary in Yorkshire, winter and summer alike, and I never saw that they "ailed aught." They should find a place in every aviary, for their beauty is undeniable, and they have the merit of being cheap. His coat always reminds one of the line in "Jerusalem the Golden,"—"With jasper glow thy bulwarks."

The Shamah is rather like his neighbour and cousin the Dhyâl, and delights, when other birds speak to him of peace, to make him ready to battle. He loves a wide range, and requires ample space wherein to exercise his wings. If you hear a great stampede in the bird world you may be sure the Shamahs are coming, and then it is a case of "sauve qui peut."

The Cordon Bleu is a striking little bird as long as he lives, but the period is of very uncertain duration. I have had him as long as seven years, and I have lost him in less than seven days; so that to those who delight in games of chance, I should say, try the Cordon Bleu and you will not be disappointed.

The Australian Crimsonfinch is a very quarrelsome bird. He would have quite sympathised with the Irishman who was fined £5, in some English town, for fighting, and who exclaimed, on hearing the decision of the Bench, "Begorra, but wait till I get ye in Limerick, where fighting is cheap!" I will back him for his fighting weight for long odds against any bird I know bar a Scarlet Tanager. In that case he will make him haste to escape, and will seek a place to flee unto until the tyranny be overpast.

The Sydney Waxbill is a bird for those who love "the harvest of a quiet eye." He is none so common either, and when I add that he is a "shy breeder," I have said enough to recommend him to many.

The Green Cardinal is a beautiful bird with its blended green, and yellows; but, alas, it cannot endure our gloom, and damp, and fog. Cold it does not mind, but fog induces asthma, and asthma ends in death.

The Virginian Cardinal, with his scarlet coat, has a sub-tropical appearance, and, when you first see him in the aviary, looks as though he had escaped from some happy land "Where the flowers ever blossom, the beams ever shine." No frost can hurt him, no weather make him afraid, and like Mark Tapley, he always tries "to be jolly," and enlivens the dullness of winter like the scarlet coat of the huntsman on the snow.

The Zosterops always reminds me of a "little girl wearing granny's specs." He is a charming little bird, whose pretty graceful ways one never tires of. He is an indefatigable hunter after spiders, and will keep a large enclosure quite free from blight, to the great benefit of the shrubs and of his own internal economy.

The White-throated Finch is what cricketers would call a "good all-round bird"; neat but not gaudy in appearance; hardy in his nature and frugal in his ways. He seems to care but little for the "joys of home"—at any rate in England—and therefore to those who like a shy breeder I would say, "Try the White-throated Finch and you shall not be disappointed."

The Nonpareil is a gorgeous fellow. One poetic dealer that I know, with a view to increased prices, has christened him the "Rainbow Finch." If a thing of beauty is a joy for ever, then the Nonpareil should be in every aviary; but remember if you want him to live long and see good days, you must feed him properly. Insect food is *indispensable* to his well being.

The Indigo Finch is a bird that does not believe that it is a

good and joyful thing for brethren to dwell together in unity. Put a rival in his enclosure and he will hunt him as keenly as Saul hunted David on the hills of Engedi; and what is more, if he gets him, he will make an utter end of him. "Azure Finch" is the poetic name by which he is known to dealers, who "set traps to catch men."

The Java Sparrow in the white variety, is, with regard to colour, like the cream of which we are told that "it is seldom what it seems." Generally certain spots and blemishes have been removed before his appearance in public, and these, like the weeds in our garden, sooner or later reappear to the great sorrow and indignation of the purchaser. Added to this, he is a dull vicious bird, and therefore I would always prefer his room to his company. The grey variety is a good tough bird, on which the prentice hand should try his skill. I doubt that he could kill him except by personal violence.

The Zebra Finch is a bright and cheerful little fellow, and, "like a brother born for adversity," is always welcome. His life is what Insurance Agents would call a "good one," and his gay coat and sprightly ways will enliven the aviary at all times. He is, moreover, a "free breeder," and Dr. Butler says he likes his *nest cleaned out and re-arranged* ever so much !!! (a).

The Pintail Nonpareil is undeniably beautiful, but I dare not recommend him as hardy. Still, I have wintered him out of doors; but then you must be prepared, as the furniture removing people say, "to take all risks."

The Parrot Finch. There are some birds that once seen are loved for ever. The Parrot Finch is one. I have found him pretty hardy; and his beautiful crimson head and green body colour are always admired.

The Cutthroat is a very desirable bird for a beginner to try his prentice hand on, and the broad band of red on his throat always suggests the idea that he has *had an accident whilst shaving*.

The Gouldian Finch is rather a sad and depressing bird, suggestive of a text on human life, "So soon passeth it away and we are gone." Their beauty is undeniable. Solomon in all his glory was not arrayed like one of these; but as a liver he is distinctly disappointing, and always reminds one of a quaint epitaph on a little child, I once saw:—

"I was so very quickly done for,
I wonder what I was begun for."

Still, if money is no object, there is no harm in trying him.

(a). Mr. Farrar ought to go in for romance: he is certainly an inventive genius.—A. G. B.

The Lavender Finch, if able to recover from the prostration of importation, is a charming little thing, and will long live to charm by his soft and tender beauty.

The Avadavat, if not so common, would be valued by all. In spite of this, he should find a place in what florists call "our selection."

It has suddenly struck me that I had better stop here. A story was told some time ago of a poet who wrote some verses entitled, "Why do I live?" The Editor to whom they were submitted returned them with these lines: "You ask the question 'Why do I live?' We will answer it. Because you *sent* your poem to us instead of *bringing it*." My readers will supply the parallel.

THE BLUE MOUNTAIN OR SWAINSON'S LORIKEET.

(*Trichoglossus swainsoni*).

By W. OSBALDESTON.

The breeding of this species was accomplished, year after year for some four years previous to 1890, at the Blackpool Aquarium and Menagerie, before the present Tower buildings were erected. The place was then owned and kept by Dr. Cocker, and *then* the birds were well looked after. His house stood in the centre, with a toy arcade on the one side, and the Menagerie, Aviary, and Aquarium on the other, and with the large seal pond in the front, outside, as at present.

The Aquarium, since much altered in appearance, was on the ground floor, as it is now.

The aviaries and cages were arranged on the upper floor, along each side of the room in a continuous string, on a two-foot high brick foundation covered with concrete, and were kept scrupulously clean. Each cage was 7ft. high, 5ft. long, and 4ft. deep. The back was a brick wall, with ends, divisions, and front of strong, well made, one-half inch straight wire. The tops also were wired, so that the fancy ceiling might not be damaged. In some instances, two of these cages were made into one, and this was the case with the Blue Mountains' home. The bottoms were kept well supplied with fresh grass sods daily. The temperature, winter or summer, was not allowed to fall below 50—60 degrees Fahr.

The Blue Mountains were fed on canary seed, with now and again some spray millet. Fresh water, for bathing and drinking, was supplied regularly, in large round earthenware

pans, 1½ in. deep. Apple, with a ripe grape or two—which they liked—was given by way of fruit, but none of the soft swashy concoctions (*b*) which these birds are supposed to require. Log nests were supplied, and also specially picked cocoa-nut husks of a large size. Two or three pairs were generally kept together; and with them there were also some Rosellas (which they could not get to breed) and Cockatiels.

These birds make fine pets, and are of an extremely lively disposition, and rather excitable, at times dropping dead without warning or apparent cause. They are sometimes rather noisy, having the penetrating voices common to the whole tribe of Lories and Lorikeets.

This species is much sought after, and finds a ready sale, owing to its beautiful plumage. The young, when just fledged, are like the parents, but not so vivid in colour. The male, which as a rule is much larger than the female, has a deeper coloured neck band—more of a dark blue. The breast plumage also is more ruddy, and of a reddish orange shade, and the under tail feathers are yellow and *without spots*. The hen has the usual hennish look—if I may use the expression. The breast is more yellow, the tail more greenish-yellow, and *with spots*; and the ring on the nape of the neck is green instead of dark blue. A good representation of a pair is shown in “Vögelbilder aus Fernen Zonen.” When courting, the fantastical contortions of the male, in his desire to please his mate, are exceedingly amusing to behold.

One year a very curious, handsome, “sportively” plumaged bird was reared. The head was red with lacings of white, and the shoulders were tinted with green. The greater portions of all other parts of wings, body, and tail were of a bright chrome yellow, intermixed with green feathers here and there; and the tail feathers were tipped with red; making a really handsome, showy, and rare bird. It was a young bird in May, 1891, and was alive some three years afterwards to my knowledge. I went many times to look at and admire this rare-feathered Lorikeet, for I took a great liking to it; I wanted to purchase, but they would not part with it. On one occasion, I noticed that its claws had grown very long. It was always kept in the same cage with the others.

The hardness of this species, when properly acclimatised, commends it to all.

(*b*). But how about the “dropping dead without warning or apparent cause?”—R. P.

They have bred some grand lions in the corridor next to the aviaries, both before and since the desecration of the latter ; for now the birds are kept in quantities, all jumbled up together any how, simply for the purpose of attracting the public.

[See page 173 ; Mr. Osbaldeston has most kindly specially written this article for the information of our members.—R. P.]

[We should be glad of the experience of other members as to the difference in the plumage of the sexes of Swainson's Lorikeet. We have owned several of these birds and have invariably found the males slightly larger than the females ; but in one pair in which there was not the slightest doubt of the sexes, the *female* was by far the brighter coloured bird, with an almost entirely red breast ; whereas the male had very little of this colour on his breast at first, although it became redder as he grew older. We believe that the extent of the red on the breast depends entirely upon age, and not sex.—ED.]

RECENT PUBLICATIONS.

Mr. Finn's little book on the Birds of Calcutta (*c*) consists of some twenty-four articles which have from time to time appeared in the *Asian*. It is written in a popular and pleasant style, and contains many interesting notes on the habits of the birds, their nests, and eggs. Under most of the headings are included several species, which bear the same popular name. Those who are interested in Indian birds will find much that is well worth reading in this little book, which especially appeals to residents in and visitors to Calcutta.

Professor William E. D. Scott, of the Princeton Museum, has contributed a paper to the American journal *Science*, on Data of Song in Birds, and the acquisition of new songs, which should be read by all interested in this subject. He mentions several instances of birds imitating the song of other species, and acquiring new songs. A remarkable case of a wild Rose-breasted Grosbeak (*Zamelodia ludoviciana*) saying several sentences quite plainly, is mentioned ; but we can only suppose that the bird had escaped from captivity.

Part 3 of the *Emu*, which is a considerably enlarged number, completes the first Volume of this journal, which has already been noticed in our pages. The present number contains several very interesting and instructive papers on Australasian

(c). *The Birds of Calcutta*, by FRANK FINN, B.A., F.Z.S. Calcutta : Steam Printing Works, 3, Wellesley Place. Price 2s. nett.

birds. We heartily congratulate the Editors and all concerned in its production, on the success which their journal has already attained ; and we hope the second volume, which commences in July, may be a still further success.

The Foreign Bird Club has discontinued the publication of *Foreign Bird Notes*, but has joined with the National British Bird and Mule Club in the production of a small journal entitled *Bird Notes*, the second part of which has just appeared. Mr. J. Frostick contributes a useful paper on food for soft-billed birds, and there are several interesting notes on foreign and British birds, and their treatment in captivity.

OBITUARY NOTICE.

SIR HARRY THOMPSON, K.C.M.G.

Our Society has probably sustained a greater loss than it is aware of in the sudden death announced in *The Times* of Sir HARRY THOMPSON, K.C.M.G., Administrator of S. Lucia.

Both he and Lady THOMPSON were interested in birds and might have been trusted to do the best they could to secure the birds of any places in which they might reside, and as Sir Harry was in the prime of life, we cannot say to what places he might not have been appointed, from which he might have secured bird rarities. Apart from this, however, Lady Thompson will have the sincerest sympathy of our members in her bereavement.

BIRD NOTES.

Mr. Finn contributes some interesting notes on the White-breasted Kingfisher (*Halcyon smyrnensis*) of India, to the April number of the *Zoologist*. This bird occasionally practices piracy. "An individual which haunts the Museum pond," Mr. Finn writes, "wherein there are some Dabchicks, has several times been seen by me to attempt to rob one of these birds of a fish which it had captured, and once, at all events, with success."

Mr. Frank M. Littler contributes an interesting paper to the *Emu* on

European birds in Tasmania. The commonest species, as might have been supposed, is the House-Sparrow, which appears to have been introduced from Adelaide some thirty or forty years ago, it is thought, in mistake for the Tree Sparrow. It is now so numerous that it does an enormous amount of harm to the grain-crops and is detested by the farmers in consequence.

It is pleasing to hear that our delightful Goldfinch, which was introduced some twenty years ago, has thriven well, flocks of forty or fifty individuals being seen at a time. Its increase appears to be regarded with favour, as it is said to do much good "by feeding on the Scale and other insect pests with which the trees are infested."

The Starling (*Sturnus vulgaris*) was brought to Tasmania from New Zealand about the year 1800. It has thriven and multiplied; but, although it does much good by destroying harmful grubs, it becomes a nuisance in the fruit season by its "depredations in the orchards" and legal protection, which was at one time extended to it, has now been withdrawn.

The introduction of the Skylark into Tasmania is of a more recent date. Some thirty or forty years ago a number were imported from England and liberated near Newtown, but these did not thrive; and as recently as ten or fifteen years ago others were introduced, which have succeeded well, and their descendants are now fairly numerous in the paddocks in the Newtown district. Others have been introduced into various parts of the Island and have done well.

Pheasants, Partridges and Red Grouse have all been tried, but have not become established up to the present time. The great drawback to the successful rearing of game birds in Tasmania seems to be lack of sufficient suitable cover.

CORRESPONDENCE.

NOTES FROM AN INVALID'S COUCH.

SIR,—I am getting along famously. I get some one to wheel me to a nice sunnyspot where, with the aid of my glasses, I can watch the birds. This afternoon (April 29) I spent watching a pair of Long-tailed Tits building—I was within a few yards of them the whole time; it was most interesting and amusing; only the foundation of the nest is laid so far. It is placed on the branch of a pine, overhanging the drive. A number of Jackdaws have again taken up their residence in the old elms that border the drive; also a pair of Stock Doves. There is also a Brown Owls' nest in one, but of course I cannot climb about to find it out yet.

Starlings are everywhere. I found one nest in the middle of a thick fir, containing five pure white eggs. I have a young friend with me who investigates any nests I discover. On Sunday, a brood of Moorhens hatched in a nest in one of our Fancy Duck enclosures. I think one of the old birds is one

I reared last year, but am not sure; I mean to try and find out; I can identify it by the left foot, as one of its toes is broken and bent out of position. I will examine the traces in the mud at the side. I have been watching the old ones for about an hour, but have been unable to get a glimpse of the feet. One old bird was on the nest while the other fed on the bank; in about a quarter of an hour the latter swam to the nest, which is placed in the centre of the roots of an alder growing out of the water about six feet from the bank. The little ones immediately clambered out of the nest and waited to be fed; the old one then *disgorged* the food, giving its head a good shake each time, and then fed each one in turn; after being fed, they climbed back into the nest and tucked themselves away under the mother. I am afraid they will not survive long. Crows and rats are too numerous.

In this enclosure are Mandarins, Sheldrakes, Carolinas, Fulvous, Indian Spotted-bills, Rosybills, Pintails, Magellan Geese, Black Wild Duck, call Ducks, and others I do not know. The Mandarins, Carolina, and Black Wild Duck all have nested this year, and are sitting I believe.

The Cuckoo is very much in evidence here. I noticed a pair of Redstarts yesterday; and several pairs of Swallows were flying about the lofts and outhouses.

One of the boatmen at the coast is going to try to obtain some Ring Plovers' and Oyster Catchers' eggs to-morrow; I hope to rear a few in the incubators.

I am afraid you will think me somewhat childish, writing like this, but nothing gives me so much real pleasure as the study of the living creatures by which we are surrounded.

WALTER G. PERCIVAL.

[Mr. Percival knows how to make a good use of the long, and too often tedious, hours of a slow recovery. The nest of the Long-tailed Tit is a wondrous and beautiful structure. I was not before aware that the Moorhen regurgitated its food for the benefit of its newly hatched young. But, when one comes to think of it, there is no other way in which such a bird could carry the food to its still feeble and chilly brood. At the earliest stage that I have ever had an opportunity of making an observation, the parent (only one visible) continuously picked up minute—to me invisible, though not many feet distant—specks of food, which it placed on the ground just in front of each chick in turn, as they slowly and silently hunted along the edge of the water, the chicks picking up each atom of food so placed before them, but little or nothing besides. Nevertheless they appear to feed independently of their parents at an early age, but perhaps not so early as some of us may have supposed.—R. P.]

ADVENTURES OF A CROWNED CRANE.

SIR,—It may interest you, and perhaps some members of our Society, to hear of the escape of my Crowned Crane last Friday. I had intended taking Mr. St. Quintin's advice (page 124), and had arranged for Mr. Hart, owner of the Museum for Birds at Christchurch, to come over and pinion him on the following Wednesday; for we had noticed he had once or twice in the evenings flown on to the top of a fence over six feet high. At about 7 o'clock on Friday, April 25th, he suddenly flew on to the top of a house,

and, a few minutes afterwards, on to the roof of the Church, which we can see from our windows. After that he was seen in a garden at some distance; but it grew late and dark, and we could not do anything. We had bills posted, and advertised in several papers, but heard nothing; so I greatly feared he had been shot, or was starved for want of food.

On Sunday morning, we were told he was in the Churchyard, and there, standing on a tomb enclosed all round with high iron spiked railings, we found him! He did not make the slightest resistance to being caught; and, indeed, I cannot help thinking he put himself there on purpose to be seen and taken. It was so clever of him to fly back to the Church, which he evidently remembered was close to his old home.

He ate and drank ravenously, and slept for many hours. Beyond seeming very weak, and having a scratch on his leg, he was none the worse, and is now daily getting back his strength. He seems perfectly happy to be back, and I don't believe would fly away again; though we took the precaution to cut the wing feathers shorter (they had scarcely grown in the two months); and to-morrow he is to be pinioned.

I know you will understand how glad I am to have him back again, for I never thought he would return of his own accord—and *he is such a beautiful bird!!!*

OCTAVIA GREGORY.

[The advice of our experienced Treasurer should not have been disregarded. But Mrs. Gregory is to be heartily congratulated, not so much on the recovery of the Crane—with which we have every sympathy—but on the remarkable occurrence that she should have found a locality in England where the inhabitants have attained to such a pitch of civilization as to allow a strange bird to be at large over one full day without butchering it. I can quite agree that the return of the Crane to the Church could not have been altogether an accident. Doubtless the outline of the Church was associated in the bird's mind with safety, peace, and plenty, and instinctively, when he found out what a mistake he had made, he flew back to the well remembered landmark.—R. P.]

THE BLUE MOUNTAIN OR SWAINSON'S LORIKEET.

SIR,—I bought six Blue Mountain Lories in November, 1900, and put them in cages in a cold greenhouse. One died, one I got rid of, leaving the two pairs, which I turned into an outdoor aviary (by themselves) in September, 1901; they appear to be in perfect health. Will you please let me know, (1) Have they ever been bred in England? (2) What kind of nesting-places should I provide? (3) Would you leave them in the aviary for good?

I feed them on baker's bread soaked in milk, canary seed, and lump sugar, of which they will eat three or four lumps each a day; oranges they do not seem to care for.

C. CASTLE-SLOANE.

The following reply was sent to Mr. Castle-Sloane:

Swainson's Lorikeet, the familiar Blue Mountain "Lory," was successfully bred in the Blackpool Aquarium in the autumn of 1890. Two young were reared. I heard a good deal about them at the time, but forget

particulars. See the U.K.F.C.B. Society's Reports, Sept., 1890, page 5, and May, 1891, page 3. See, also, "Notes on Cage Birds," page 163. I rather think that it has been bred since, but am not sure. Of course it has been bred in Germany. It nests in holes and hollows from preference. Log-nests are the best, if the holes are large enough; many of the log-nests sold are unsuitable. The best results are often obtained by the log being placed sideways, but slanting well up, fixed close under some shelter, with the top partly removed, so that the birds may use both top and aperture. But all these birds are very accommodating when really in good breeding condition; get them into perfect health, *and keep warm*, and they will nest fast enough—but take care that the nest has a saucer-shaped depression, so that the eggs may not roll about. Do not use sawdust as, in a dry place, it chokes up the pores in the shell, and the young die before coming out. Their proper nesting season is the autumn, and the normal number of eggs is two.

They do much the best in an aviary, the larger the better; but for successful breeding, like other Lorikeets, they will probably require to be kept warm.

The stronger they are, the more savage they become, and cannot with safety (unless there be one of each sex, forming a *pair*) be kept with Lorikeets, Conures, Brotogerys, or birds at all like themselves. If the aviary be large they will not, as a rule, injure other birds: but they are selfish, interfering creatures, and often spoil the nests of other species.

If the aviary be sufficiently warm and sheltered, they had much better be left alone, for they will be less likely to nest if moved about and interfered with.

I am very doubtful if the two pairs can be kept together should either think of breeding. I hardly think that they are sufficiently sociable to nest together like Budgerigars, but do not know. I should fear murder, and recommend that they be closely watched as the nesting season approaches.

I do not quite like your food. I should stop the bread and substitute plain biscuit: give plenty of milk. If you sweeten it, use white sugar in preference to brown. Try and get them on to fruit. I use grapes, cut up and served in china (not metal) dishes, of which my Lorikeets used to be very fond. Try also banana and apple.

Fits are what you have to guard against. These may be brought on by excitement, so if possible never catch or hunt the birds. But the fits are usually brought on by indigestion in some form or another, stomach or liver. Therefore feed them on slops and fruit as much as possible—and a mealworm may be given occasionally. Fluid magnesia in the milk or drinking water is the best preventative, should you see a bird lumpy, or closing its eyes as if it had a headache; occasionally, too, when threatened, it will shake its head, or rub it against its perch, as if trying to get rid of something.

REGINALD PHILLIPPS.

SEXING BIRDS.

SIR,—Without pretending that the method I am about to describe of determining the sex of a given bird is infallible. I believe that, as a general rule, it does obtain, the exception being young subjects of the year.

I have had a good deal of experience in handling birds, more often dead than living ones, and I find that if the bird is placed on the left palm with its head away from the observer, the feathers on the breast will, if the bird is a female, part readily, leaving a bare space, varying in width, with the breast-bone for its centre; if, on the contrary, the bird is a male, the feathers will not divide in the same even manner, but will be found growing, more or less closely, over the whole surface, even over the edge, or margin, of the breast-bone, or keel.

I shall be glad if other aviculturists will make observations in this direction for themselves, and either confirm or disprove my theory.

W. T. GREENE.

GOLDEN PHEASANTS WITH QUAILS.

SIR,—I see in the May issue of the *Avicultural Magazine* a correspondent asks, if it would be safe to keep Golden Pheasants with Quails and other small birds? I have done so for over five years and have never had a little bird injured in any way except by accident; and that was when some young Chinese Painted Quails were newly hatched off, and two were trodden on. The Pheasants never attacked the smaller birds, and I have had various cocks.

Want of space necessitated my putting one pair of Quails into the Pheasant aviary for about eight months, otherwise I should not have done so, as the Pheasants disturb them too much by walking about, and over their nest, and it was difficult to protect it properly.

My aviaries are only 21 feet long by 9 feet wide; probably in your correspondent's aviaries, which are 57 feet long, the Quails would be perfectly right.

I have kept Golden Pheasants for eight years, and never had a bad tempered cock yet, although I cannot make them quite as tame and confidential as the hens.

A. H. BROOKSBANK.

IDENTIFICATION OF BIRDS.

SIR,—I send you the following descriptions of birds I saw on April 24th and May 4th, hoping that you may be able to identify them:—

No. 1: Larger than a Sparrow; under parts, neck and upper part of back light buff; wings and rump dark fawn; cheeks reddish brown; head dark; a dark bar down the back; beak rather long.

No. 2: Variegated brown on wings; head dark; yellowish stripe over eyes; ditto patch on head; size scarcely larger than a Wren; longish tail; dark cheeks.

No. 3: (May 4th). Size and shape nearly the same as No. 2; beak

longish, thick at the end and slightly curved; colour, greenish brown above; head dark; light grey below, with a dark bar running down sides and crossing abdomen behind legs.

I should say that No. 2 was insectivorous, from its Tit-like movements.
CHAS. CUSHNY.

After receiving Mr. Cushny's letter, I wrote for more information, to which he replied on May 6th. The following answer was then sent to him:

I am afraid your descriptions are not exact enough for the identification of the birds.

No. 1 was probably a Bunting or Lark, judging from the reddish-brown cheeks; but I do not remember any Passerine British bird with a dark bar down the back; it sounds more characteristic of a young Gallinaceous bird.

No. 2 may, I think, have been a Tree-Creeper; its constant activity and nervousness seem characteristic of that bird; but, in your first description, you mention a yellowish patch on head, in addition to the stripe over eye, which is perplexing.

The description of the bird seen on May 4th is more puzzling, if possible, than the others. I know of no small British bird in which the abdomen, behind the legs, is crossed by a dark bar.

Descriptions of birds seen in the woods, or during a country ramble, are never satisfactory. A bird constantly on the move in bright sunshine may seem to be marked with bars which, perhaps, are merely strong shadows of twigs, cast upon the bird's body by the sun. Sunlight also greatly alters the apparent colouring of a bird; changing browns to glistening gold, or white to buff; it intensifies reds and greens in a marvellous manner.

When descriptions of birds are sent to cabinet ornithologists, their reply is: "Send us the birds and we will name them for you," and I think they are wise.
A. G. BUTLER.

PENNANT'S PARRAKEET WITH ABNORMAL PLUMAGE.

(Extract from a letter from Signora Baldelli:)

"I have a Pennant's Parrakeet that, instead of having a red breast, is all speckled with blue. Is it a freak of nature? Can it be a hybrid? Or is it a distinct species?"

The following answer has been sent to Signora Baldelli.

In Gould's 'Handbook to the Birds of Australia,' Vol. II. p.p. 45 and 46, the author states, respecting Pennant's Parrakeets, that—"The colouring of the sexes when fully adult is alike, but much variation exists between youth and maturity; during the first autumn the young birds are clothed in a plumage of a nearly uniform green; to this succeeds a parti-coloured livery of scarlet, blue and green, which colouring is continually

changing until the full plumage of maturity is assumed; and hence has arisen no little confusion respecting this species in the writings of the older ornithologists."

Your bird, therefore, is probably not fully matured.

A. G. BUTLER.

[There is a very rare Parrakeet, which is said to inhabit the interior of New South Wales, known as Masters's Parrakeet (*Platyercus mastersianus*) a specimen of which is at present on view at the Zoological Gardens. It is very like Pennant's Parrakeet but has much more blue on the plumage, and it is possible, although hardly probable, that the bird owned by Signora Baldelli is referable to this species.—ED.]

THE PRAIRIE OR BURROWING OWL.

SIR,—I should be greatly obliged if you could tell me if the sex of the American Burrowing Owl can be distinguished by the plumage.

About two months ago, I bought a couple from a dealer in Bournemouth. When they arrived, they had chocolate-coloured head feathers, and a few largish speckles on their breasts, the under parts being brownish. In a very short time they assumed what I suppose is their adult plumage, viz., speckled heads and thickly spotted breasts, the under parts in one bird especially becoming much whiter. This bird has white eyebrows, and a white patch under the chin. It is the larger and more forward of the two. 'The other bird' is much browner, and has very little white about it; it is also slighter in build.

The backs, wings, and tails of both resemble those of the Little Owl in colouring.

E. F. CHAWNER.

The following reply was sent to Miss Chawner:

The female Owl is usually the larger; and my female Burrowing Owl is slightly larger and more thick-set than her mate. But, as far as plumage is concerned, it is your smaller bird that is most like the female.

Have you noticed which bird hoots? Towards evening, I frequently see the male hooting, but have never detected the female so doing. Of course, during the night, I do not *know* which bird it is that hoots.

Watch your birds, and observe which is the more talkative and sprightly, and the more ready to come to the front to do battle.

My female is a splendid mouser.

REGINALD PHILLIPPS.

[NOTE.—Further information received seems to prove that, in this case, it is the larger, lighter-coloured, white-chinned bird, which comes bowing to the front with out-spread wings to protect its mate, that is the male.—R.P.]

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

GOULDIAN FINCH. (Miss B. Shepherd). Purchased about a fortnight; mopy from the first.

[Death resulted from inflammation of the liver and bowels].

NUN. (Miss B. SHEPHERD). In owner's possession two years; suddenly appeared humped up, and died. [Cause of death, congestion of lungs].

GOLDFINCH and GREEN SINGING-FINCH. (Dr. W. G. Creswell).

[Death resulted from concussion of the brain in both cases. The Singing-finch was a cock].

TANAGER. (Mrs. Noble). Seemed very restless all day, and kept pecking at its food but not eating. Fed on raw carrot, boiled potato, biscuit-meal, ants' eggs and hard-boiled egg. Very few mealworms.

[Cause of death was inflammation of the bowels. It was a Blue and Black Tanager].

ZEBRA-FINCH, hen. (Mr. M. E. Rycroft). Appeared to be ill, but seemed to recover somewhat; next day, however, was found dead. It had commenced nesting.

[Death was due to inflammation of the oviduct, owing to retention of the membrane of a soft-shelled egg, which had broken].

Cock BULLFINCH. (Mrs. McCorquodale). Found dead.

[Death resulted from apoplexy].

FIRE-FINCH. (Mrs. Robertson). Apparently quite well day before it was found dead. [This bird died of jaundice, a result of inflammation of the liver, probably caused by chill].

LITTLE OWL. (Mrs. Noble). Appeared to be in perfect health until day before it was found dead.

[Tuberculosis of liver was the cause of death].

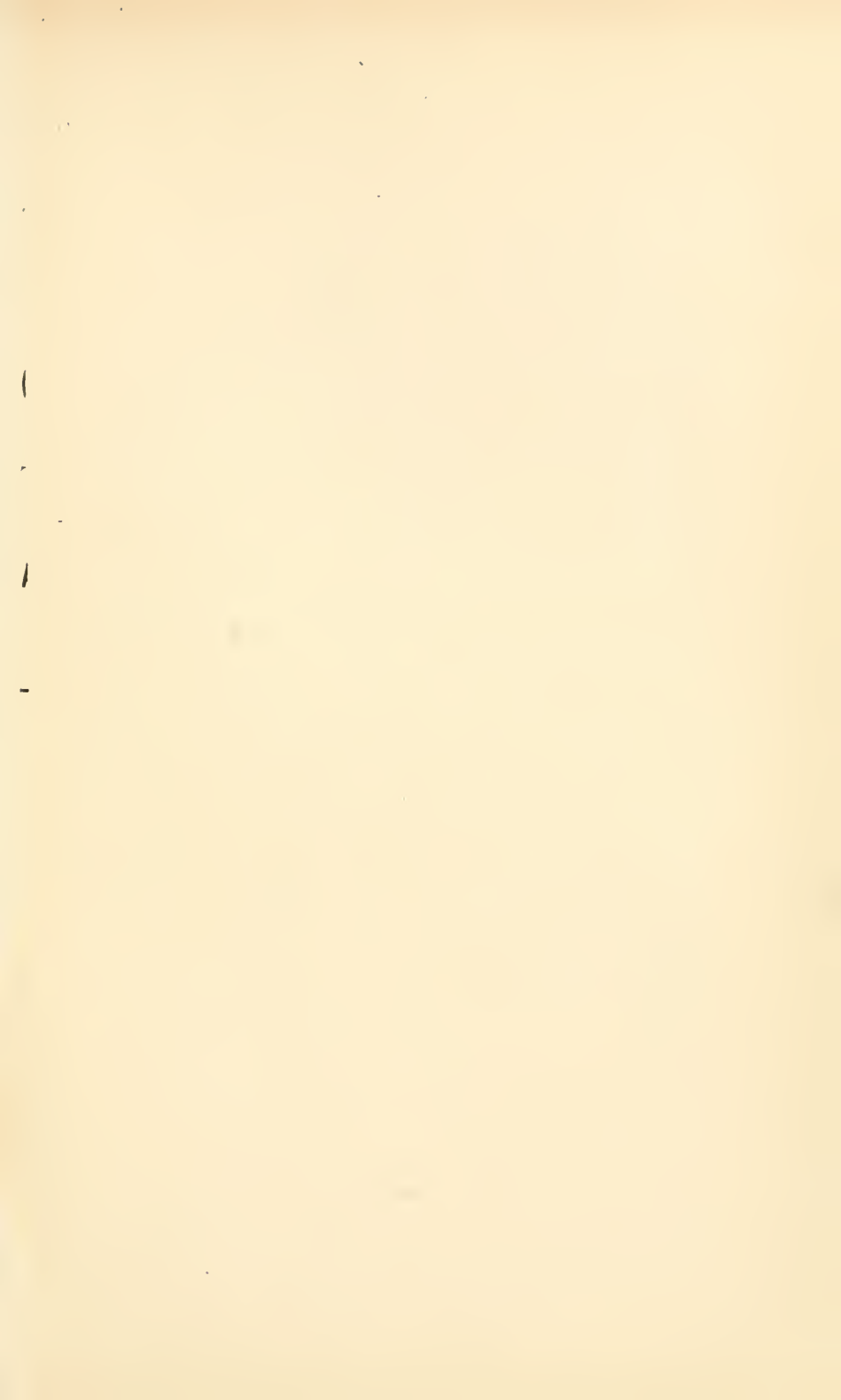
LONG-TAILED GRASSFINCH and AVADAVAT. (Mrs. Limley Perrier).

[Cause of death was pneumonia, caused by chill in each case].

ORANGE-FLANKED PARRAKEET. (Mrs. Connell). In owner's possession rather more than two months, but always appeared to be ailing.

[Cause of death was tuberculosis, and the bird was terribly emaciated as the result of its prolonged illness].

ARTHUR GILL.





YOUNG INDIAN PITTA.

(*Pitta brachyura*.)

From Living Specimens in the possession of the Rev. H. D. ASTLEY.

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THE INDIAN PITTA.

Pitta brachyura.

By REGINALD PHILLIPPS.

In November last, at page 8 of the current volume of our Magazine, the Rev. Hubert D. Astley gave us a short sketch of the Indian or Bengal Pitta, *Pitta bengalensis*, or *Pitta brachyura* as the Museum Catalogue (Vol. XIV. p. 423) has it, a brood of four young hand-reared specimens of the species having reached his hands in the previous September. They were, at the time of writing, moulting from the dull brown of the first plumage into the second feather, the whole colouring being then "the same as in the adult bird (as figured in Gould's 'Birds of Asia') except that it is altogether duller."

Mr. Astley was very fond of his Pittas, and probably looked forward to breeding them during the present summer, as I certainly had hoped to have done. But "The best laid schemes o' mice an' men, Gang aft a-gley." Mr. Astley's schemes ganged all a-gley through the cruel tyranny of the medical men who, almost without notice, heartlessly banished him from his native country; and for months he has been a wanderer and an exile in foreign lands. And my visions of baby Pittas ended as castles in the air and soap bubbles are wont to do, as those who will take the trouble to read this article will shortly perceive.

When ordered abroad, being unable to take the Pittas with him, Mr. Astley most kindly gave me the refusal of them; and, on the 19th December, 1901, the four birds found themselves in a cage in my dining-room.

Before parting with them, Mr. Astley had made a very pretty painting of one of his pets, which he most kindly presented to me for the Magazine. It was too large, and has suffered considerably in being cut down and reduced, so that it might be brought within the limits of our pages. Nevertheless it gives us an excellent idea of the Pitta in the second feather,

which, as already stated, is like to but duller than the plumage of the fully adult bird. But the birds have left Mr. Astley's hands, and so it has fallen to my unhappy lot to write the account of the species which has to accompany the coloured plate. Yes, my unhappy lot, for my story is a story of failure, and it is not a pleasing performance—not pleasing to oneself at any rate—to trumpet abroad one's own incompetency. Nevertheless failure is an experience; and Dr. Greene, in days long since gone by, once told me that all experiences are valuable. This paper, consequently, is, or ought to be, of exceeding value, and should therefore be read by every aspiring aviculturist who may be thinking of investing in the not inexpensive luxury of a family of Pittas.

It will clear the air, and help our readers to understand the situation, if I state at once the two main causes of my failure; these were, the pugnacious character of the species, and my want of space which prevented me from providing suitable and separate lodging for each of the four birds. They are not quarrelsome, although a great nuisance, with birds of other genera; but no two Pittas, no matter the sex, could be kept together, even in the comparatively large spaces (loose I mean) of dining-room, bird-room, or aviary. My accommodation for the birds is limited, especially during the cold season, when so many, practically all of my 80—90 birds, have to be brought into the house. Aviculturists who live in the country cannot form an idea what it means to be unable to extend one's boundary in any direction by as much as two inches. Again, although my summer arrangements are rather nice, in winter my bird-room, which opens on to the back of the house and is shut in by projecting buildings, is hopelessly dark and altogether abominable. And when I add that the Pittas, although so welcome, for one cannot secure a Pitta every day, came to me quite unexpectedly, after every inch of available space had been very much more than appropriated, it will be readily understood that it was impossible for me to treat them as Pittas should have been treated.

They are not small birds, and require a good deal of space if they are to be maintained in health; and I found too that, owing to the darkness, they did not get on well if shut up in any of the "houses" in my bird-room, although the smallest of these is slightly over 4ft. long by 2ft. by 2ft. Besides all this, they are delicate as regards temperature; and, having but partially-moulted wings, for some months they kept chiefly to

the ground, and thus were more liable to take chills. And here yet another misfortune came in. At Benham Park they had evidently been kept at a far higher temperature (in a greenhouse I understand) than I was able to give them, and the moult of some of them, especially of the flights, seems to have suffered a check. This may have been caused by the terribly cold journey from the country to this house; for, notwithstanding the care with which they were packed up and brought to me by hand, they looked pinched and tucked up for two or three days after their arrival. One queer little fellow, smaller than the others, did not progress with the moult, could not fly comfortably, and eventually died of consumption on April 7th last, the best bird of the four dying, likewise of consumption, five days later. This latter I had let loose in the bird-room with a female, in the hopes that they might pair up; but one day she turned upon him and drove him out into the garden (during a part of the day, if not too cold, the window would be left a few inches open, to allow the hardier birds egress and ingress), where I found him hiding away in terror in a damp hole, soaked to the skin and shivering with cold. I am not satisfied that he died from the effects of this chill; I slightly lean to the suspicion that the female had previously detected weakness, an unpardonable crime in the eyes of birds of this class, and had instinctively turned upon him to his destruction.

This habit in some creatures of killing off the weak and sickly members of their respective species has often been used as an argument in support of the "Survival of the Fittest" theory; but, taken by itself, it does so only in a limited degree. Some species are vicious and pugnacious and some are not. A pugnacious or vindictive bird will unhesitatingly murder its fellow, *although a better bird than itself*, if it can catch it at a disadvantage. One of the best Shâmas I ever had, in perfect health, was murdered in my aviary just because he had indulged too freely in a bath and was unable to defend himself. I have noticed on several occasions, with various bellicose species, that if there be two foes in the same aviary, neither will dare to wash lest he might be caught by the other, for, whether it be tubbing or moulting, they know perfectly well how completely they will be at the mercy of their antagonist. Again, I once had a fairly good Bluethroat (*Erithacus cyaneeculus*) nearly murdered (he would have been wholly murdered had I not come to the rescue) by a fellow Bluethroat who was *dying*—he was actually dead by the next morning.

On the other hand, as every practical aviculturist knows, with many species, the healthy and the dying will live together to the last moment, cuddling together, the healthy bird kissing and fondling the dying mate or friend, and bewailing its inevitable departure.

No. 3, No. 1 in order of time, was run to death by the same female that afterwards caused or hastened the death of No. 2; and the study of her case leads us on to another feature in the economy of the Pitta which I must bring under notice for the information and guidance of aviculturists; and I feel sure that Mr. Astley will forgive me if, in the cause of aviculture, I differ from him, and may seem to find fault with the management of the birds whilst they were under his care.

Before forwarding them, Mr. Astley warned me that their feet were delicate, and that I must take care not to have coarse sand on the bottom of their cage.

It seems many generations ago since I received my first Pied Rock-Thrush. Those I first obtained had been fed on mealworms, and I continued the high feeding; and swollen feet and abscesses on the faces quickly followed. I studied the case carefully; and I came to the conclusion, a conclusion the soundness of which I never have had occasion to doubt or cause to modify, that it was the too high feeding that had produced the evils referred to and others besides. For years and years I have kept the Pied Rock-Thrush, up till this last April to be precise, but have never since had a tumour on a Rock-Thrush—nor on any other species excepting the Pitta.

Some years ago, I obtained a couple of immature Golden Orioles. A well known German aviculturist chanced to pay me a visit, and, seeing the Orioles, warned me against allowing the perches in their cage to become dirty as they had very tender feet, and would get swollen feet if I were not careful. I remembered the Rock-Thrushes, and was satisfied in my own mind that my visitor was mistaken. Between that day and this I have had many Orioles, Golden and others, and have some still, but have never had an Oriole with a suspicion of a swollen foot.

With these experiences to look back upon, I naturally, if egotistically, attributed the swollen feet of the Pittas to the bounteous hospitality of their owner rather than to the sand. The feet of three out of the four Pittas were bad, one very bad. So ill has this last bird been sometimes that I have looked upon her case as almost hopeless. And yet this is the sole survivor of the four Pittas, the slayer of one, perhaps of two, of her companions.

Little notice was taken of her after she had been left alone with no one to murder. Neither mealworms, cockroaches, nor dainties fell to her lot; she had to fare as best she might and rough it with all the rough ones of the miscellaneous aviary; and yet her feet have not been exhibiting any signs of tenderness for quite a long time past.

The one that came to me with sound feet is the male I have already referred to as the "best" of the lot.

The first death in order of time was in connection with these swollen feet. The murderess *in esse* and another female were together in a cage in my dining room, both with bad feet:— they were too ill to quarrel. They were being specially treated with fluid magnesia and taraxacum, and externally with spermaceti ointment. Occasionally I would open the door of their cage and allow them the run of the room; and the softness of the carpet was unquestionably acceptable. On January 21, I noticed marks of profuse bleeding. The murderess had, with returning health, recovered her natural vindictiveness, and given chase to her companion; and a swollen foot of the latter had burst, and the bleeding had been very serious. Directly I noticed what had occurred, I caged the sufferer and carefully nursed her, and the next morning she seemed very much as usual. Then I made a fatal mistake, for which I cannot be too severely censured. The bird was an invalid; and if I had continued to treat her as an invalid all would have been well. Again I let them both out together, loose in the room, not having at that time fully realized the nature of the Pitta. All was quiet at lunch time, but, some two hours later, I found that the sick bird had been pursued to such a condition of faintness and exhaustion that all efforts to revive her were fruitless, and she died from collapse, owing to the loss of blood, a few hours later. This bird's life was thrown away, a consequence, not (as I am often told by one who ought to know) of my having too many birds, but just from want of space.

How easy it is to be wise after the event! How little did I dream when I received these four Pittas with so much pride and satisfaction that such a mournful story was before me! Pride cometh before a fall. One must buy one's experience.

I have referred incidentally to the Pitta being a nuisance when kept with other birds. It is in a sense a bold and forward species, and always helps itself to the best of everything. And it does not stop at this, for, standing in the food as it usually

does, it keeps away other birds, and fouls the food in an unusually objectionable manner.

The Pitta is an insectivorous species, and must be fed accordingly. From time to time my birds would gladly partake of cut up grapes, but this probably more as medicine than as food; and seed was occasionally picked up. It likes everything to be very small; and when given even quite a moderately sized cockroach it often loses it, owing to the inordinate time it takes in pulling it to pieces; in this connection, it is about as silly a bird as ever I came across. When given a cockroach, it sets to work to dismember it, looking up every second or two to see if there are any enemies near; and, the more enemies there may be about, the more does the Pitta hold himself up and wag his tail, and the slower is he over his work, until one sometimes loses all patience with him; for in the bird-room it is almost impossible to get him to swallow any tit-bit unless one stands guard over him to keep away the other birds. If left to himself, up comes some other bird; and the Pitta, leaving the cockroach unprotected on the floor, stands perfectly upright on his long legs like a Crane, his tiny tail, rapidly moving up and down, appearing between his straddled legs, like a very much shortened tail of a gentleman's dress coat as our host stands on the hearth-rug with his back to the fire in the traditional attitude of John Bull. It is in this position that I should like to see the species portrayed; but, when one is not one's own artist, the most interesting and characteristic positions and movements of one's pets are usually lost to the world.

The *boldest* of his adversaries is the male Rufous-chinned Laughing-Thrush (*Trochalopteron rufigulare*:—Museum Catalogue, Vol. VII. p. 365), a jolly, straight-forward, simple-hearted bird, without viciousness or vice of any kind, and always waited upon by his admiring wife as by a shadow. So sweetly innocent is he that, when he sees a cockroach, he concludes that it must be intended for himself and for himself alone, and goes for it in the most simple-hearted and straight forward manner imaginable, without frown, or raised feather, or threat of any kind, and equally without regard for the blustering attitudes of the Pitta. As he advances, the Pitta recedes, holding himself up to his highest stretch, and opening, expanding, and waving his wings, in order to intimidate the intruder by the unexpected sight of the large patch of brilliant white within. In a gloomy swamp or jungle, where the bird itself would be practically invisible, the flash of white might have the desired effect. Punch is as bold

as a lion, albeit somewhat cautious, and for a day or so kept at a distance from so uncanny a fowl as the Pitta. But a coward is soon found out. Punch soon took his measure; and, in all simplicity, he now blandly hops up to the cockroach, and with perfect urbanity hops off with it to some quiet retreat.

But by far the *slimmest* thief is the Brown-eared Bulbul (*Hemixus flavala*:—Museum Catalogue, Vol. VI. p. 49). This individual bird, the only specimen of the species I have ever seen (*), is not very forward when the "Advance" is sounded. He is hardly the kind of champion the trembling maid of ancient history would select to do doughty deeds on her behalf, nor quite the kind of man a prudent general would choose to head a forlorn hope; but a more capable person to lead an advance to the rear could not be found in all India. He would as soon think of bearding the Pitta in his den as of eating his own head. So clever on the wing and quick at dodging is he that one cannot imagine the hawk that would be sharp enough to strike out a single feather.

Picture to yourself the Pitta in the bird-room occupied with a cockroach, the window being a few inches open, and your humble servant standing over both with a long stick in his hand, in order to drive away the adversaries. On this occasion, however, these precautions seem unnecessary; all the larger birds are in the garden, or are supposed to be; not a foe is visible; and the Pitta and the cockroach are happy. Suddenly a wild piercing shriek, a kind of double shriek, rings through the room, and the Pitta starts up in alarm. There would be a faint sound of a flutter of something somewhere, a sort of a shadow across the retina, a half impression that a ghost had brushed past uncomfortably near to one, and then all would be as silent as the grave. The startled Pitta would look carefully around, would slowly recover himself, would give a wag of relief, and turn once more to his cockroach. *But the cockroach has disappeared!* In vain does the Pitta turn himself about, and search hither and thither and between his own legs; it slowly seems to dawn upon him that he has been fooled, and like a snubbed cur he slinks quietly away with his tail between his legs, and is seen no more. Outside, in the aviary, a crowd of birds are pursuing one of their fellows which has a cockroach in his bill, but all in vain; at the very first pause the cockroach disappears down the artful one's throat—and I feel about as foolish as the Pitta.

(*To be continued*).

Since this was written, one specimen of the species has reached Mr. Hamlyn's hands.
R. P.

THE HAWK-HEADED PARROT.

By W. T. GREENE, M.A., M.D.

There is nothing particularly accipitrine-looking about *Derophtus accipitrinus* except its name, or names, which are more or less inappropriate, and if I had the re-naming of it, I should call it the Ruffed Parrot, for it raises the feathers of the neck and the back of the head into a kind of ruff or nimbus that imparts a wonderfully weird and characteristic appearance to it, and differentiates it at once from every member of its family.

Like all the Caiques (unless its temper is spoiled by teasing), it is a merry, gentle, and loveable bird, not exceptionally intelligent, perhaps, but full of tricks, and capable, too, of repeating a few words, and even short sentences. It certainly discriminates between different people and never addresses one person in mistake for another.

For example, one of these birds that I had the happiness of possessing, "Joey," whom (I cannot say "which" in this connection) I bought at the door from a pedlar for half a sovereign and some old clothes, never said, "Ah, ha, papa!" to anyone but myself, whom he evidently considered to be the head of the house; nor did he ever begin to cry like an infant except when my youngest boy came into the room and approached his cage; but he would say "Ta," (tah) to anybody who presented him with a grape or a bit of biscuit, and if he liked the morsel he could keep on repeating his thanks while he sucked or ate it; but if it was not to his taste, he would fling the morsel to the ground with an exclamation that sounded like an expression of disgust, "Huah," and scream, which I regret to say he could do, and occasionally did: but he was a dear old fellow for all that—alas! that I should have to speak of him in the past tense, but the best of friends must part in this transitory life of ours.

Joey had a very funny trick of revolving round his perch with a celerity that made one dizzy to look at him when so engaged; what his idea was, it is impossible to guess, but if I said to him, "Turn round, Joey," off he would go at the rate of many revolutions to the minute, although the moment before he might have been half asleep, and the revolutions did not even seem to make him giddy; then when he had revolved as much, or as often, as he deemed advisable, he would erect his head and neck feathers, look you full in the face and exclaim, "There!" as much as to say, "Was not that well done!"

The performance was always rewarded with a tit-bit of some kind, and perhaps that was the reason he was so ready to obey when he was asked to "turn round."

Another trick of his was to hang by one leg from the upper perch in his cage, ruffle all his feathers, let his wings droop, and whine exactly like an infant in distress. So realistic was the imitation that visitors who heard him for the first time, but did not see the bird, have said to me, "I did not know you had a baby in the house," and would scarcely believe me when I told them that the noise they heard was the utterance of a Parrot and not of a child. This performance Joey would frequently indulge in when alone and probably felt himself to be neglected, but if a real baby voiced his, or her, feelings in his hearing, at once the bird would fling himself from his perch and try to out-whine the little human performer.

He had his antipathies as well as his preferences had Joey, and one of the former was my youngest son, then a child of about seven or eight years old, who used to tease the Parrot, and had been cautioned against doing so, for Joe had a powerful bill, and I feared that he might make it felt if provoked too far.

He was let out of his cage every day, and at such times Charlie was enjoined by no means to go near him, but on one occasion he did, and the Parrot "went for him" with a yell of defiance, or of exultation in anticipation of revenge. Charlie fled, with the Parrot after him; hearing the commotion, the cook rushed out of the kitchen, just in time for my little boy to bury his head in her apron, and for Joey to nip her arm, which he did so effectually that the wound had to be sewn up. The good woman, however, who was partial to the Parrot, took the mischance in excellent part, with the remark, "Never mind, sir; better it be my arm than Master Charlie's face, and I know he (the Parrot) didn't mean it."

Although he had large and powerful wings, Joe had not the least idea of flying, and when I thought to induce him to use his dormant powers of flight by turning him into the garden aviary, he was evidently so unhappy there that I had to take him in again, and on being restored to his cage he exclaimed "Tah," several times with unction, and then began to twirl round his perch with more than his accustomed energy.

Joey was not a young bird when he came into my possession, and had begun to pluck himself—the man I bought him from (I hope he had not stolen him) said the Parrot was "moulting," but I knew better, and thought I could cure him;

but no, he gradually got worse in this respect, and at last looked the veriest scarecrow, though I had introduced him to a lady of his own species that had been given to me some time before, and her society for a time seemed as if it might wean him from his evil habit.

"Pinto" was the name we had given to the lady in question in honour of the friend who had made me a present of her, which reminds me of a funny misprint that was made in a paper I was contributing to a monthly magazine. I had written: "The first bird of this species that I had seen was presented to me by a Portuguese friend," but the compositor, whose thoughts were evidently running on his dinner, turned the last word into "fried," and when I corrected the error and sent back the slip to the press reviser, the proof was returned to me with a query mark against the word "fiend," which was the compositor's second attempt to make me say the thing that was not; but the sentence appeared as I originally intended when the article came out in the magazine for which it had been written.

Needless to say, I was much delighted when I received a letter from Senhor Pinto asking me to accept a rare Parrot from the upper regions of the Amazon, a beautifully coloured bird about as big as the African Grey Parrot with the red tail. It had a curious habit, he said, of erecting the feathers at the back of the neck and head into a kind of Elizabethan ruff, which gave it a very singular appearance.

I accepted with effusion, as the French say, and the Parrot arrived in due course. Naturally, we were all curious to see the strange bird, and the whole family crowded round to watch me open its travelling cage.

"Pinto," as we immediately named the Parrot, or as we had done in anticipation of its coming among us, I forget which, immediately stepped out upon the table, shook itself, and then gazing calmly round upon the assembled multitude, ejaculated "Well," with a distinctly interrogative inflection, as much as to say, "What are you all staring at, I should like to know?"

There was plenty of seed in the travelling cage, but I thought the Parrot might be thirsty, so I offered it some water in a cup, of which it took a few sips, and, dear me! what a funny bill it had! The lower mandible projected beyond the upper one, which rested upon it, for quite half an inch, and had the appearance of a little shovel or rather scoop.

When Pinto had satisfied his thirst he put his bill on the

table (there was no cloth on it) and ran round it several times, every now and then emitting a curious little squeak. He was wheeling a barrow one of my boys said, and the noise he every now and then made reminded me of a revolving wheel, of which the axle wanted greasing.

This, we afterwards found out, was a favourite trick of Pinto, and was probably done with a view to rubbing down the redundant portions of the lower mandible.

Pinto was perfectly tame, and talked a great deal in an unknown tongue, one of the dialects, no doubt, of some native Indian tribe on the Amazon, but his only English word was "well," and he never picked up another.

He had his likes and dislikes too, and was particularly inimical to a lady visitor who often came to see us, but he never attempted to bite, though evidently enjoying the fright he used to put her into by pretending to run at her with all his feathers bristled up, hissing vehemently the while, but Pinto's bark was much worse than his bite.

When I afterwards, several years afterwards, acquired Joey, I noticed that there was a good deal of difference in the appearance of the two birds, and that Pinto was somewhat smaller than my new acquisition, whose head, face, and pointed nuchal feathers were creamy white, while our old friend had the same parts of a dull or dingy grey.

Subsequently I ascertained that this was the sexual difference, and that Joey was the gentleman and Pinto the lady. I had a pair, and why not a little family of Hawkheads by and bye?

It is not well to count one's chickens before they are hatched, but we are all apt to do it, and prepare a disappointment for ourselves, and I am no better than the rest.

The two birds were never very friendly, but they did not exactly quarrel, and in time, perhaps—but I have reason to believe that Pinto was advanced in years, and that Joey had passed his first youth, but whether it was the thought of lost opportunities, or jealousy of the new comer, I know not, but to our great regret Pinto seemed to pine away, and, in a few months after her introduction to Joe, passed to that bourne —.

Is it necessary to describe the plumage of those well-known birds? I think not; a glance at the splendid portrait of the August Amazon in the June number of our Magazine, and a little draft upon the imagination, will give our members a

very fair idea of the personal appearance of the Hawkhead, which has longer feathers on the back of its neck than the August one, and a different coloured head, otherwise the likeness holds.

I have understood that these birds, the Hawkheaded Parrots, are not very uncommon in their native zone, where they are frequently tamed and kept by the inhabitants, but they are not often taken down stream, and not many of them find their way to Europe; those that are imported are, as might be expected from their up-bringing, charmingly tame.

It is well not to tease them, however, for it is possible to ruin the most angelic temper by so doing, and make the gentlest of created beings vicious—not that either of my Hawkheads ever deserved so crushing an epithet, but I must admit that Joey was somewhat irascible at times, though Pinto never was.

On referring to the plate of the August Amazon, I see that both sides of its tail are brown; in both my Hawkheads it was green above, and black on the under surfaces. The head and face feathers of the Hawkheads are narrow and pointed, and there is a wide margin of dark corrugated skin round the eye, but with the differences mentioned they resemble the August Amazon exactly.

THE REDSTART.

Ruticilla phœnicurus.

By A. G. BUTLER, Ph. D.

Of this charming little Thrush I have had a good many examples at various times, chiefly owing to the liberality of my friend, Mr. E. P. Staines, of Penge, formerly a member of this Society.

Although, like its relative the Robin, the Redstart cannot be regarded as a very long-lived bird; it is an extremely pleasing addition to a mixed aviary, soon becomes confiding, is not dangerous to birds of other species, and has a pleasing plaintive Robin-like song.

The wild life of the Redstart is pretty well known, and I am afraid I can add nothing to the facts already recorded respecting it; the bird itself is readily recognizable, the upper surface showing much slaty grey colouring, the under surface a good deal of rusty reddish; the characteristic features however are the chalky-white forehead and the large black gorget enclosing the base of forehead, lores, eyes, cheeks, and throat.

The singularly springy vibration of the tail is also a distinguishing peculiarity of Redstarts.

This species, being a summer migrant to Great Britain, was formerly supposed to be extremely delicate; Swaysland (Cassell's Cage-birds p. 313) quoting a correspondent who considered it impossible to winter the Redstart without a fire. In very severe seasons this may be the case, as witness the effect of 21 degrees of frost upon a specimen given to me by Mr. Staines in 1893; although that bird appeared to be none the worse for the cold, it died during the change into summer plumage in the succeeding spring.

The spring change, not being produced by a moult in this species, nor even by shedding the margin of the feathers, as Seebohm asserts* (Brit. Birds, Vol. I. p. 291); but, by an extension of the bright colouring into the margins of the feathers; would not be expected to weaken a bird, so as to accelerate its death; yet I have lost a good many birds, of various non-moulting species, at that time; and, in nearly every case, death was manifestly due to exposure during the winter. For this reason, although the Redstart and many other species may not be especially delicate, I think it better that they should pass the winter in a temperature not lower than 50 deg. Fahr.

Although like the Robin in many of its actions, in its tawny russet breast, in its song, and its habit of nesting in holes; its eggs are quite dissimilar, being indistinguishable from those of the Hedge-Accentor. The Robin is a very dangerous associate for other small birds, and played havoc in the aviary of the present Editor of "The Zoologist" some years ago, drilling holes in the heads of three or four of his finches in one night (a); I have however always found the Redstart quite indifferent to the presence of other birds, except when feeding; and then a Zebra-finch, or even a Waxbill, could scare him away.

But, though *Ruticilla* is so polite to strangers, what I have to record will prove that he is anything but a gentleman. In the autumn of 1901 Mr. Staines brought me a pair of Redstarts which I turned out together in my long covered aviary, among Waxbills and other tiny finches. During the winter they

* The specimen just spoken of showed the fringes entire, but some of them parti-coloured, in all gradations from ashy to tawny red. A. G. B.

(a). Of the many Robins which I have kept in aviaries, not one has done any mischief; which should, I think, be a caution to some of our friends, not to decide upon the innocence of any bird from their personal experience of its behaviour. A. G. B.

Mine, if allowed to, would sooner or later murder the Nightingales, irrespective of sex. R. P.

behaved fairly well, excepting that whenever the male wished to feed he objected to his wife sharing the meal, and invariably drove her away. This, being a not infrequent failing among savages, I did not consider a dangerous symptom ; and therefore looked forward hopefully to a more amicable state of things at the approach of spring, and to the prospect of breeding this pretty species in captivity.

Alas ! when the (unusually wintry) spring of this year ought to have arrived, the male bird was anxious to enter the estate of matrimony ; but the female was by no means prepared for so early a wooing, and fled in terror from her boisterous lover. Being more swift of wing, the male bird always succeeded before long in capturing his coy charmer, whom he hammered over the head in the most brutal manner ; so that, one day, I discovered the unfortunate bird in a corner with all the feathers torn from her scalp : she was so dazed, that I picked her up without trouble ; and, after anointing her head with vaseline, put her by herself in a flight-cage, gave her two or three mealworms, and some fresh food. In an hour she seemed much better, and, for about a week, I hoped that she would yet be all right before May ; in which case, I might still have a chance of breeding with her ; but one morning I came down to find her dead.

Now, although the cock Redstart ought to have known that his brutal treatment of the hen bird was the cause of her disappearance ; I had no sooner removed her, than he began to bemoan her loss,—“*wheet-tit, wheet-tit*” all day long ; as he wandered restlessly about, evidently searching for her in all parts of the aviary ; and this he did, day after day, for several weeks ; after which he resumed his song, and seemed reconciled to his bachelor condition.

This experience, I think, tends to show that the sexes of the Redstart ought to be kept apart, until the arrival of the natural breeding season ; when, in all probability, they would soon make friends : it also suggests the likelihood of two male Redstarts fighting as fiercely as two male Robins, if kept together in the same enclosure.

How long Redstarts live when at liberty, I don't know ; but repeated observations upon the Robins which build in my garden, or my son's, year after year, has convinced me that three years see the beginning and end of their existence as breeders. Each cock Robin has some peculiarity in its song, which, to one who hears it daily, stamps its individuality ; it is thus easy to recognise a new singer, in place of the old.



BURROWING OWL.
Speotyto cunicularia.

Photo. by D. Seth-Smith.

Bale, Sons & Danielsson, Ltd.

In captivity, I believe it is possible to keep a Robin in health far longer than three years ; and, therefore, I hope to be more fortunate with my present Redstart, than with any of its predecessors ; none of which, I think, has lived with me for more than about two years.

I do not doubt that the majority of male Robins are parricides, fighting with and murdering their fathers, as soon as they have become vigorous enough, and their male parents feeble enough, to render the result of a combat a foregone conclusion. Is this also the case with Redstarts ? I fear it is the case not only with these, but with many other birds ; probably with Blackbirds, which one sees grappling, fiercely pecking, and tumbling over in the dust, regardless of all else, but the desire to kill one another. This struggle for existence is necessary now, to enable all the young birds which are born to live ; if the older did not go to the wall, the feeding grounds would not be sufficient to supply the needs of the rising generation : so the birds, which might have been caught and petted, are condemned, by the present law of England, to be slaughtered by their own offspring. Man often muddles when he tries to help nature : this country will only maintain a constantly decreasing number of birds ; they must eat in order to live ; and where their food is not to be found, no law that ever was framed will induce them to settle. Goldfinches, say the ignorant, are becoming scarce, because of the birdcatchers : not a bit of it ; they are plentiful as ever, but not here ; because of the incessant building on all pleasant places, and all waste ground ; because of the wholesale levelling of copses and spinneys, and the mowing down of acres of thistles and hard-heads. The Goldfinches arrive in their myriads as aforetime, and they cry to one another, "Where are the desired habitations of former years ? Where are the pleasant woodlands which our fathers have spoken of ? The land of England has become a waste wilderness of bricks and stucco, where no sensible Goldfinch may find rest for the soles of his feet." Therefore they pass on to lands less civilized, and more congenial : and so shall it be with the Redstart and many others.

THE BURROWING OWL.

Speotyto cunicularia (Mol.).

By D. SETH-SMITH, F.Z.S., M.B.O.U.

Most of us remember the story, told to us in our childhood days, of the little Owl of the American prairies, which lived with the prairie dog and the rattlesnake, and how the latter

member of this happy family usually broke up the party by devouring its two companions! Needless to say this was nothing but a fable; but that the Burrowing Owl very frequently occupies the burrows of the prairie marmot in North America, has been proved by good observers, who also tell us that the young marmots form one of its chief articles of diet. This pretty and interesting little Owl inhabits both North and South America. In the Northern Continent it appears to be more or less migratory, according to Captain Bendire, who tells us that in Washington, Idaho, and Oregon, they migrate about the beginning of November and return in the early part of March. The burrows of the prairie marmot are very numerous in many parts of North America, and where this is the case the Owls very seldom excavate burrows for themselves. In districts where the burrows of mammals are scarce however, as on the South American pampas, Mr. Hudson tells us that he believes nine-tenths of the Owls make their own burrows. "While stationed at Fort Lapwai," Captain Bendire writes, "I had an opportunity to see an Owl at work enlarging and cleaning out a burrow. The loosened dirt was thrown out backwards with vigorous kicks of the feet, the bird backing gradually towards the entrance, and moving the dirt outward in this manner as it advanced. These burrows vary greatly in length and depth, and are rarely less than five feet in length and frequently ten feet and over. If on the level ground they usually enter diagonally downward for two or three feet; sometimes nearly perpendicularly for that distance, when the burrows turn abruptly, the nesting chamber being always placed above the lowest part of the burrow. If on a hillside it will frequently run straight in for a few feet, and then make a sharp turn direct to the nesting chamber. At other times the burrow follows the curves of a horseshoe, and I have more than once found the eggs in such a burrow lying within two feet of the entrance, and close to the surface of the hill on a trifle higher level; where, had it been known, they could have been reached with little trouble. These burrows are generally about five inches in diameter, and the nesting chamber is usually from one foot to eighteen inches wide. After the burrow is suitably enlarged, especially at the end, dry horse, and cow dung is brought to the entrance of it, where it is broken up in small pieces, carried in and spread out in the nesting chamber, which is usually lined with this material to a thickness of one or two inches, and I have never found any other material in the nest. In California, however, they are said to line them occasionally with dry grasses, weed stalks, feathers, and similar

materials. On one thing most observers agree, namely, that these burrows invariably swarm with fleas." The number of eggs laid to a clutch is said to vary from six to eleven.

This Owl is far more diurnal in its habits than most of its congeners, and never seems to be dazed by bright sunlight. It, however, becomes much more active towards dusk, and feeds principally between sunset and sunrise. Their actions are most quaint; if approached they generally bob up and down, then spread out their wings and clap their mandibles together with a curious sound. "If closely approached," Mr. Hudson writes, "it drops its body or bobs in a curious fashion, emitting a brief scream, followed by three abrupt ejaculations; and if made to fly goes only fifteen or twenty yards away, and lights again with face towards the intruder; and no sooner does it alight than it repeats the odd gesture and scream, standing stiff and erect, and appearing beyond measure astonished at the intrusion." My own birds never screamed when approached, but if they saw a dog in the distance they immediately commenced to emit the scream, followed by the three abrupt ejaculations, described by Mr. Hudson.

The food of the Burrowing Owl consists of any living creatures that it is capable of killing, from prairie dogs to beetles. In North America young marmots, ground squirrels of several species, chipmunks, gophers, mice, rats, frogs, lizards, snakes, and insects of almost all kinds, are devoured; and Captain Bendire believes that these birds will eat more than their own weight in twenty-four hours. Mr. Hudson tells us that "occasionally they are seen preying by day, especially when anything passes near them, offering the chance of an easy capture." "I have often," he writes, "amused myself by throwing bits of hard clay near one as it sat beside its kennel; for the bird will immediately give chase, only discovering its mistake when the object is firmly clutched in its talons. When there are young to be fed, they are almost as active by day as by night. On hot November days multitudes of a large species of *Scarabæus* appear, and the bulky bodies and noisy bungling flights of these beetles invite the Owls to pursuit, and on every side they are seen pursuing and striking down the beetles, and tumbling upon them in the grass."

In captivity these little Owls are very easily kept. They should have a good sized aviary, and an artificial burrow should be constructed for them. A good way to do this is to place an inverted wooden box, with a large hole cut in one side, in a

corner of the aviary, and from this lay a good sized drain pipe, about three feet long. The whole should then be covered with a large mound of sand, leaving only the end of the pipe visible. The drain pipe should be of considerable size, say nine inches in diameter, and should have about two inches of sand on the bottom, or invert, so that the Owls will not have to walk on the cold earthenware pipe itself. As to food, nothing comes amiss in the way of dead creatures, providing that they are fresh; birds, mice, rats, or even butcher's meat. Insects are also greedily eaten, especially beetles of all kinds.

Mr. Meade-Waldo, who has bred this species several times in his aviaries, tells me that the young ones burrow as soon as they can run; and, curiously enough the young of the Little Owl, *Athene noctua*, does the same, but leaves off when grown up. He has also pointed out another very interesting feature in which the young of this species and those of *A. noctua*, are alike, namely that they have a complete juvenile plumage, between the down stage, and the adult plumage; whereas in the Scops family the young moult direct from the down stage to the adult plumage as do the Hawks.

A DEMOISELLE CRANE.

By Mrs. GREGORY.

“Kra-aak — kra-aak — kra-aak” — that is the voice of Coquette outside my window. Coquette is the name of my hen Demoiselle Crane, and that thrice repeated guttural cry brings back to my memory another voice, more powerful, more resonant, in its trumpet-like notes—the voice of my beloved “Carlos Mateo,” a bird of such wonderful fame—“his like shall ne’er be seen again”! He was a fine specimen of a Demoiselle Crane was Carlos—upright, defiant, bold as a lion when he had his mistress to defend; walking up with his stately measured tread at the first advance of a stranger, his red eyes shining like precious stones, and his whole bearing alert and watchful. Round me he would sidle keeping very close guard, and the moment the intruder’s eye was off him, instantly he would fly with outstretched wings, beating them violently, and occasionally giving a sharp peck with his beak if it were a gentleman; with ladies he did not behave quite so badly. If anyone touched anything belonging to me he was up in arms in a moment, even to the extent of standing before particular seats and nooks in

the garden, and guarding them jealously, so specially did he associate them with me.

As all who have kept Cranes know, insects form a large portion of their food, and are sought by them continually with great diligence. Now, I have observed that all outdoor birds are particularly partial to *Spiders*—certainly Demoiselle Cranes have a great weakness that way. If my husband found a nice, large, fat spider and offered it to Carlos, thinking to propitiate him—down he would flop upon his breast in that sudden unexpected way these birds have—right on the top of the spider which remained hidden underneath, until my husband walked away; then the Crane immediately allowed it to crawl forth, when he would eat it with much relish. He would never allow anyone but myself to give him any food. To walk into the aviaries behind me (closely following like a dog, which was his habit always in the garden) was a daily pleasure to my dear bird; and he would patiently wait, standing by my side, as I fed Golden, Silver, and Amherst Pheasants with mealworms, knowing his turn would come last of all; and this, with his imperious masterful disposition, was very wonderful, for I have never known him to allow the hen Crane either to eat, drink, or enter their enclosure before him.

One of his prettiest ways was to come to all the lower windows of the house in turn, peering into each room and gently tapping with his beak to find out where I was. As soon as he caught sight of me he was perfectly content to take up his stand and remain for hours watching me, and waiting till I came out. Without exception he was the most faithful follower that ever was, outdoing dogs in his affection, which was never that of cupboard love or greediness: in this he differed from most pets. His dancing (which he always commenced at a signal from me), his posturing, bowing, and curtsying, were all of a piece with his graceful form and elegant exotic appearance, so that he was a thing of beauty from morn till dewy eve; and on my first rising, his dear face and keen and anxious eyes would be gazing up at my window; and the last thing, as I looked out on a fine moonlight night, I would see him standing like a sentinel, guarding—not only the other birds—but the house in which he knew his mistress slept.

And now to tell the sorrowful end of this most loved and loving bird! One morning after dancing over the lawn in perfect health and spirits, seeming as if in the joyousness of his heart he could go on for ever—I left him—and in another hour

my Crane lay stiff and stark in violent convulsions. I carried him in my arms to a sheltered spot, for he could not stand, and although I saw plainly from the first I could do nothing to save him, I tried all possible means. To the very last he gave a little "purr" each time I stroked his head or neck—then all was still and his sufferings were at an end!

"Arsenical poisoning" was the verdict! He had pecked at some wire netting, newly painted with green paint, which had been put up to keep dogs from entering the garden, and which Carlos resented, as it prevented him from walking up to the front door to wait for me—his daily habit. Thus through his devotion he died.

THE MUTTON-BIRD OF AUSTRALASIA.

A very interesting paper entitled 'A visit to the Furneaux Group of Islands,' was read before the Field Naturalists' Club of Victoria, by Mr. D. Le Souëf, C.M.Z.S., on Feb. 10th last, and was published in the *Victorian Naturalist*, (Vol. XVIII. No. 12). These Islands are situated in Bass Strait, off the North-East corner of Tasmania, and appear to be seldom visited from the mainland, although some of them are inhabited. Sheep and cattle are kept by the inhabitants, whose chief industry, however, lies in the taking, and preserving as an article of food, of the young of the Short-tailed Petrel (*Puffinus tenuirostris*) commonly known as the "Mutton-bird." The following account is extracted from Mr. Le Souëf's paper.—ED.

"These interesting birds nest on many of the smaller islands, such as Chappell Island, Little Dog Island, Little Green Island, Great Dog Island, Babel Island, and many others. The Tasmanian Government have prohibited the taking of the eggs of the bird, but allow the young birds to be taken for six weeks during the months of March and April. These birds, as is well known, come in from the sea to lay about the 25th November, and deposit their one white egg at the bottom of a burrow about four feet in length, which is sometimes straight, other times not. Both birds take turns in sitting on the egg, the absent one being away at sea during the day feeding, returning just after sunset to its patient companion in the burrow, but occasionally both parent birds are found together in the burrow during the day. One egg is laid, but it is probable that if that is taken they lay

another in the course of about ten days, but this has not yet been finally proved. We were enabled to visit a rookery just at dusk and to witness the wonderful incoming of the birds—a never-ending source of interest and wonder. How the birds, as they fly swiftly in in the semi-darkness, are able to pick out their right burrow from so many thousands of other burrows, apparently almost identical, is a matter of wonder, and so far it has completely puzzled us. It is a fascinating sight seeing so many thousands and thousands of birds whirling round over one, but mostly flying low; and then, as the new arrivals enter their burrows, they are welcomed by their mates with extraordinary kinds of sounds which, coming from the earth, seem to make them all the more weird. The birds leave again at early dawn. Apparently their object in coming in during the dusk is to escape the attacks of the birds of prey, which during the day keep a fatherly eye on any stray birds they may find on the land, especially the Ravens. These birds hunt over the islands, and any egg they find on the surface or in a shallow hole is soon disposed of, and any Mutton-bird or smaller Petrel they find near the surface and within view as it sits in its burrow they at once pounce upon, and, after a hard tussle, generally end in dragging the unfortunate Petrel out and eating it; consequently those birds that nest in deep holes fare best, and the tendency naturally is that those who make deep burrows survive, and those who make shallow ones run a great risk of not surviving, as flocks of Ravens, *Corone australis*, are to be found in all these islands. The young birds are taken in March and April, either out of their burrows, or caught when they are on their way to the sea. They are then plucked, cleaned, and salted down in casks, and every islander, and others also, have a busy time of it while the “birding,” as they call it, lasts. It is estimated that about 600,000 young birds are yearly taken for food, yet, although such an enormous number is captured, they do not seem to diminish to any appreciable extent, which shows that a great number of young birds escape every year. Some rookeries are diminishing, but I think that is more due to cattle being allowed to wander over them and break in the holes, even when the birds are nesting, as it is apt to drive the birds to other places where they are less disturbed.”

Among the recent additions to the Zoological Society's collection, is a fine specimen of the Greater Bird of Paradise (*Paradisæa apoda*) from the Arrow Islands.

RECENT PUBLICATIONS.

* PARRAKEETS.

Our Secretary has asked me to review the first part of this admirable work: and, although others of our members would doubtless be more competent to do justice to a treatise upon the Psittaci, it is delightful to be able to express one's pleasure at the appearance of another well-illustrated avicultural book, by one of our scientific members.

At one time Aviculture was looked down upon as a mere pastime, by systematic ornithologists: the fact being, that its methods of observation were unenlightened, its attention to scientific details wanting, its publications frivolous, and abominably illustrated. Of late years all this has changed: so that the avicultural publications now being issued compare favourably with those produced by cabinet-workers; and have an equal claim to recognition by the scientific world.

The first part of Mr. Seth-Smith's book now before us, comprises an account of the *Loriidæ*; of *Calopsittacus*, *Nasiterna*, and the *Conurinae*; and consists of forty pages of clearly printed, concise, instructive, information; invaluable to all who elect to make a study of these birds.

The three new coloured plates, by Goodchild, are admirable in drawing and pose of the subjects; but I could wish that he had been willing to sacrifice some of the brilliant colouring to light and shade: it would have relieved Forsten's Lorikeet of its flatness, if there had been shading on the tibial feathers and under tail-coverts.

Frohawk's plate of the Ornate Lorikeet is one of the least pleasing of that artist's productions: certainly the subject is an unhappy one for any artist to portray, from its resemblance to an old-fashioned worsted mat; but Frohawk has done many better plates than that.

Two of the blocks in the text are unsatisfactory:—the Cockatiel contemplating suicide on page 21; and the hunch-backed Golden Conure with a gum-boil, on page 31: the latter reminds me forcibly of an old apple-woman who used to sit at her stall in St. Paul's Churchyard, hard by Shan the baker's, when I was a lad: it is far too decrepit and surly-looking for any Parrakeet I ever came across.

* *Parrakeets*: A practical handbook to those species kept in captivity. By D. SETH-SMITH, F.Z.S., M.B.O.U. Part I. Price 6s. London: R. H. PORTER, 7, Princes Street, Cavendish Square.

I can find no fault with the text. Mr. Seth-Smith recommends bread and milk for Lorikeets, which makes me shudder: but then he *knows* and I *don't*; because I never tried to keep those birds; so I accept his dictum.

I could wish the cover of the book had been less oppressive, but the binder will correct that trouble.

No student of the parrot tribe can afford to neglect to add Mr. Seth-Smith's important book to his library.

A. G. B.

THE BIRDS OF GLOUCESTERSHIRE.*

This is a work that should commend itself, not only to those who are interested in the avifauna of Gloucestershire, but to all who take an interest in British birds and their life history. The author is a keen observer and his book can be relied upon as thoroughly accurate, and as the habits of birds differ but little in different localities, his observations will be found useful to ornithologists in all parts of the country.

The author has divided the book into two parts. In the first he considers those causes and effects that may be more or less peculiar to the county, such as the influence of its position, of geological and physical features, of its climate, accidental causes, etc. In Part II. he divides the county into four districts, each very distinct in its natural features, and possessing, more or less, an avifauna of its own. The North-West District, comprising the Forest of Dean with its forest-loving birds; the Severn District, with its Waders, Ducks, Geese and Gulls; the Vale District, comprising the flat lands, chiefly consisting of pasture fields, of the Severn Valley; and the Cotswold District—"an elevated country of stone-walls, downs, sheep, arable land and scattered woods."

One of the most interesting accounts in the book is that of the Severn Sheld-Ducks, part of which we herewith print:—"These ducks are summer visitors, but occasionally one stays late in the autumn, or indeed into the winter months. The local names of "Barrow-duck" and "Burrow-duck," are due to the birds nesting usually in holes. Many of these are situated up the red sandstone cliffs, and cleverly chosen, if possible, about five or six feet under a projecting top. Frequently the nest is inland. Various sites are then selected in banks and hills, and

* *A Treatise on the Birds of Gloucestershire*, with a reference list of all the species known to have appeared in the county; by W. L. Mellersh, M.A. Gloucester; John Bellows, Eastgate. London: R. H. Porter, 7, Princes Street, Cavendish Square, W. Price, 5s.

the holes often are rabbit burrows. Nests seem also to have been found nearer Gloucester, on the tops of short broad willow trunks out of which spring the dense growth of withies. A somewhat remarkable feature is the distance inland the birds will go to nest. Two miles is no unusual distance, but in June, 1896, a nest and eggs were found at the top of Stinchcomb Hill, $4\frac{1}{2}$ miles from the river and about 700 feet above its level. In order to bring down the young birds to the water, the old birds carry them from the cliffs, usually in their bills, by the scruff of the neck, like cats carrying kittens, but occasionally tucked up between the legs. Sometimes, too, if they are walking on land, they carry the young on their backs. This method seems to be adopted in dense withy-beds, probably because taking out the young in the other ways, would bruise them either against the withies or the ground-growth. However, when the birds nest some distance from the river, they do not necessarily carry their young the whole way; for on several occasions early in the morning, the old birds have been seen crossing roads, escorting their broods towards the water. Such a procession too is formed from the high-water mark if the tide is out. When the sun is rising on some June morning, and trying to pierce, with a cold yellow gleam, the fog that still clings to the river, there may faintly be seen in the dimness what appears to be a curious long animal, slowly wending its way over the sleek shining mud. As it comes out of the mist, it will be seen to consist of a Sheld-Drake followed by a newly-hatched brood: the Sheld-Duck is the last and helps with her bill the little running stumblers if they fail to go fast enough."

This book is written in a distinctly novel style; it is not a mere list and description of the species to be met with in Gloucestershire, like most works on county Ornithology; but is written in a continuous form, and the distribution of the county's avifauna is discussed in a philosophical manner. Each page contains some solid fact, recorded from the observations of a keen observer and true naturalist; and we put the book aside with a feeling that Mr. Mellersh had taught us much of the life history of birds. Six good drawings by Mr. E. Neale, M.B.O.U., illustrating birds in their natural haunts and surroundings, are given. Of these that of the Buzzards sailing over the Forest of Dean is perhaps the most pleasing.

At the end of the book the Author gives us a Glossary of Local Names for the birds in Gloucestershire, and a Reference

list of all the species (270 in number) known to have visited the county.

BIRD NOTES.

In a very interesting article, published in the *Field* of May 17th last, Mr. Dalgliesh describes the birds to be met with in an Indian garden. The commonest bird is the House Crow (*Corvus splendens*) which, although the tamest of birds is also the wariest. "Provided you have not a gun," Mr. Dalgliesh writes, "he will let you approach within a few yards of him; but at the sight of a gun he is off at once, and, as they say of the Rook, he seems to smell powder."

The Indian Magpie (*Dendrocitta rufa*) is also common, and a great nuisance in a garden, as no vegetable or fruit is safe while he is about. Mynahs of four kinds are common, namely the Common Mynah (*Acridotheres tristis*), the Pied Mynah (*Sturnopastor contra*), the Grey-headed, or Malabar Mynah (*Sturnia malabarica*), and the Black-headed Mynah (*Sturnia pagodarum*). Orioles of two kinds (*O. melanocephalus* and *O. kundoo*) are to be seen. "The two species," Mr. Dalgliesh tells us, "build beautiful hammock-shaped nests, suspended, as a rule, between two branches." The Crimson-breasted Barbet (*Xantholæma hæmacephala*) has a monotonous note which resembles the sound of someone beating a copper, hence it is known amongst Anglo-Indians as the "Coppersmith."

The Hawk Cuckoo (*Megalæma caniceps*), an exceedingly common bird about Bengal, is known as the "brain-fever bird," from its note, which is supposed to resemble the word "brain-fever." The Indian Koel (*Eudynamis honorata*), another bird of the Cuckoo tribe, lays its eggs in the nest of the House Crow.

A colony of Spotted Owlets (*Athene brama*) haunt the garden of which Mr. Dalgliesh writes, and one of these birds, which had a nest near, took a violent dislike to the owner of the house, and would swoop down at him if he went anywhere near the nest, and on one occasion actually took off his cap.

Two species of Bulbuls, the Red-vented and Red-eared, and the Magpie Robin, better known to aviculturists as the Dhyal Bird, have been noticed in the garden.

The Purple Sunbird (*Cinnyris asiatica*), the Indian Roller (*Coracias indica*), the Indian Nightjar (*Caprimulgus asiaticus*), a Fruit Pigeon (*Crocopus phænicopterus*), and three species of Turtle Doves, are also frequent visitors to the garden, as is also the Black Drongo, or King Crow (*Buchanga atra*). This latter is one of the most quarrelsome of birds, and always ready to fight when opportunity occurs. When the fruit is ripe both the Rose-winged and Blossom-headed Parrakeets arrive to take toll. Hoopoes, both of the common and Indian species, are of frequent occurrence; and the White-breasted Waterhen (*Amaurornis phænicura*) is met with on the ponds, or, in the early mornings, searching for worms in the vegetable gardens.

CORRESPONDENCE.

ABNORMAL COLOURING OF PENNANT'S PARRAKEET.

SIR,—I should be very glad if you can tell me if a Pennant (hen), which I have in my aviary, is a freak or a distinct species.

I purchased several young birds (imported) out of colour last autumn, and when the others came into colour, this particular bird turned a pale canary yellow, but with the blue tail, wings, and face of the ordinary Pennant. Where the other birds were a deep rich crimson, this bird is pale yellow. She is rather smaller than the other Pennants, and is, I think, now nesting, having paired with a Pennant.

I was much interested to read the account of the unusual colouring of a Pennant in the last number of the *Avicultural Magazine*.

MARION JOHNSTONE.

The following reply was sent to Mrs. Johnstone :

Without seeing your bird, it is not very easy to say what it is. It sounds like the Mealy Rosella or the Yellow-rumped. If you have "Parrots in Captivity" a reference to the plates of these two, would tell you, if that is so.

F. G. DUTTON.

AMERICAN BIRDS.
EXTRACTS FROM LETTER.

In a letter to Mr. Phillips, dated May 12th, Mr. Chas. Cushny quotes various items from a Review of Audubon's 'Birds of America.' Mr. Cushny says—"Amongst other things he mentions that the White-crowned Sparrow of Labrador has a most melodious note; which rather surprised me, as I thought that none of the Sparrows were very good songsters.

"He also speaks of a Rose-breasted bird which sings at night. Can it be the Virginian Nightingale?"

Not having Audubon's book by me, I cannot say whether the White-crowned Sparrow is a species of *Passer*, but I should think it more likely to be one of the Song-Sparrows. The Rose-breasted Grosbeak is a well-known, though rarely imported, cage-bird; and far more beautiful in colouring than the Virginian Cardinal: its voice is said to be full and powerful as that of a Thrush.

A. G. BUTLER.

THE WOOD WARBLER, OR WOOD WREN.

SIR,—I am sending you the body of a little bird, which I should be very much obliged if you would kindly identify. Yesterday afternoon (May 19) two birds flew with great force against the window; one of them fell to the ground; and, after a few convulsive movements, his pretty bright eyes closed for ever. The other remained standing on the window-sill, apparently stunned, for some time,—but at last he flew away. The two were exactly alike. The only bird-book our friends here (Montgomeryshire) have, gives no information or description of these pretty birds, and I should so like to know what they are. The shape and attitude when living are very like that of a Siskin, but the colouring is very different.

F. M. ROTCH.

The following reply was sent to Mrs. Rotch :

The exquisite little bird which you forwarded to me is the Wood Warbler, or Wood Wren as it is often called, *Phylloscopus sibilatrix*, one of our regular summer visitors, arriving *about* the end of April and departing in September. It is a charming little bird, keeps a good deal to the woods, and builds large semi-domed grass nests on or very near the ground, often cleverly concealed. It is the larger of three allied species which visit us every summer, the other two being the Willow Warbler (or Willow Wren), and the familiar Chiffchaff. Doubtless this was a case of an unmated male approaching too near to the female or nesting-site of a more fortunate rival, who gave chase with murderous intentions.

REGINALD PHILLIPPS.

THE PARSON FINCH.

SIR,—I enclose a rough water-colour sketch of two small birds; one died, but the other I still have. They were bought in Malta, and sent to me about eighteen months ago. Will you kindly tell me if they are Weaver Finches, and where their native home is; also if they are common, and if it would be likely I could easily get a mate in England for the one I have left. I keep it in a cage in the sitting-room; although I have an outdoor aviary, I have never liked to put them there, knowing so little about them. As far as I could tell, they were both alike in plumage; the bird I have still sings seven or eight sweet notes constantly, so I conclude it is the male? I will feel much obliged for any information about these birds.

M. H. WOODS.

The following reply was sent to Miss Woods :

The sketch which accompanied your letter enables me to see at a glance that your bird is the Parson Finch (*Poephila cinerea*); and, as it sings, it is almost certainly a male. It is common in some parts of Australia, where it is usually known as the Black-throated Grassfinch. It is not a Weaver, although it builds large bulky, covered nests, laying white eggs. From time to time, large numbers reach this country; but many die soon after arrival, through not being kept warm enough. When acclimatized, they are fairly hardy, but not so hardy as is usually represented. When not over exposed, they will live for many years. During the summer, they do very much better in a moderately protected outdoor aviary than in a cage in the house. Like Australian birds generally, they want to nest during our cold season. It is a mistake to permit this. Do not allow them to nest until about the middle of May; place a few covered nest-boxes about, in sheltered private places, give them plenty of hay, dried grasses, and a few small feathers, and pretend not to see or know anything about the nest, and they will breed fairly freely. The chief points in my opinion are—not to let them nest during the winter (if necessary, separate the birds), and not to go near the nest. The more it is hidden away the better.

But I am premature. You can certainly obtain a female Parson Finch, but you may have to wait, which is unfortunate, as a new bird ought not to be allowed to nest until quite strong. It is difficult to distinguish the sexes, often *very* difficult. The song is the best sign of distinction, but birds will not sing to order. Sometimes the black throat-patch is distinctly larger in the male; and usually he is a more perky,

broader-headed bird; but these characteristics vary with age and circumstances, and cannot always be relied upon.

REGINALD PHILLIPPS.

NESTING OF THE CHINESE PAINTED QUAIL.

SIR,—It may interest our readers to hear that I have a brood of young Chinese Quails out. I saw them to-day (May 31st) for the first time. I rear them every season. The old birds are out all the year round; they are wonderfully tame, and run all round my legs when I go in to feed. They will brook no interference with their nesting arrangements: touch the nest and they will desert promptly.

May I conclude by saying they are not for sale. C. D. FARRAR.

NOTES ON THE RED-BACKED SHRIKE.

SIR,—On May 3rd, 1900, I saw a cock Red-backed Shrike, for the first time, flying about, and resting for a time upon one of the oak trees which were growing upon the bank of a circular pond, about forty feet in diameter, in the middle of a large grass field, near Uckfield, Sussex. This bird came very close to me, flying from branch to branch uttering a very harsh note. I thought I must be very close to the nest, but I was not.

On the 5th, I saw both birds and followed them into an orchard and back again to the pond. They flew very quickly, and in a kind of cork-screw way, showing their dark back and light underparts alternately.

On the 8th, I found the nest, in a large V-shaped patch of bramble growing upon the sloping bank of the pond. The nest was about three feet from the ground and about a foot from the top of the brambles, in rather an exposed position, and could be seen quite easily without disturbing anything. It was made of bents, lined with moss, with an inner lining of red cow-hair, from one of the cows in the same field, which had been scraping off her winter coat on to one of the oaks close by.

On the 13th, there were three eggs in the nest, of the greenish type. On the 14th, I saw the hen on the nest at 5 p.m. Is not this rather an unusual time for birds to lay?

On May 29th, there were six eggs in the nest, the hen must have been sitting by then. This was the only time I had found her off the nest since the 14th. On the 8th of June, the young Shrikes were fledged. They were all coloured alike. By the 12th they had left the nest, which contained an unbroken addled egg. By the behaviour of the parent birds the young were evidently close by the nest, but I could not find them anywhere. The 14th of June was the last day on which I saw the Shrikes.

These birds had a very peculiar habit of raising their tails up and bending them down, and sometimes they twisted them round, describing a large circle with the tip, while they were perching upon a branch. Before the hen began to sit, I often found them perching upon the same tree, but only occasionally taking any notice of each other: they were apparently watching for food. The cock I saw three times come and flutter about the hen, and they seemed to kiss each other, on the tips of their beaks. When the hen was sitting in the nest (in which she looked very much like a small Song-Thrush) the cock was always somewhere about and behaved very much like a Spotted Flycatcher, sitting on a branch or fence-rail, and

suddenly darting off to catch some insect, but always alighting on the ground, pulling up suddenly with outspread tail, and sometimes returning to the same spot.

The birds always became very excited when I came near, and began calling out whenever I came into the field, sometimes beginning when I was about a hundred yards off. The hen was by far the bolder of the two, calling out loudly and defiantly and coming within a yard or two of me: the cock preferred to keep from six to eight yards off. I have seen these birds again this and last year, but have not seen their nest. These notes were taken at the time of the occurrence.

H. L. SICH.

THE BLUE MOUNTAIN LORIKEET.

SIR,—As one who has kept the Blue Mountain four years, may I venture to give my experience?

(a). In my judgment they *want no heat*. They are as hard as nails, and mine were out of doors winter and summer.

(b). *Never* give them any slops, as suggested last month. I believe that it is the ‘slops’ that kill them. Notice how bad and soft in feather they are at the Zoo, where they are fed, poor beggars, on bread and milk! If fed on canary-seed, and given half an apple per diem, with water to drink, they will live for years. Mine never had a fit, and I attribute it solely to natural feeding; and I had them four years.

(c). They are very spiteful birds, and will brook no rivals in their enclosure.

(d). They are very *shy and difficult breeders*.

(e). The male has a more cruel looking head than the hen, and is a bigger and brighter coloured bird altogether. If a true pair they will be always together and feeding each other.

C. D. FARRAR.

[Does Mr. Farrar seriously mean to tell us that to feed Brush-tongues on a diet of dry canary-seed and fruit is “natural feeding?” We much doubt whether dry seed is ever eaten by Lorikeets in a wild state. The addition of milk-sop, *properly prepared*, has been proved by many experienced aviculturists to be well nigh indispensable to Lorikeets, and, although the comparatively hardy “Blue Mountain” may live for years, as indeed Mr. Farrar’s have done, on a diet of dry seed and fruit, the more delicate and rare species would, in all probability, succumb to such treatment within a few months. Ripe fruit is absolutely essential to the Brush-tongued Parrots, which will sometimes live on this alone for a time, and we strongly suspect that the apple that Mr. Farrar gave his birds each day kept them alive and well, and that very little canary-seed was eaten. Such active birds as Lorikeets are hardly likely to keep in good feather in the small Zoo cages; nevertheless their food in the Parrot-house agrees with them so well that they often live there for a number of years.—ED.]

[Mr. Farrar has missed my point. I wrote of warmth in connection with the *breeding* of the species. I have kept a good many Lorikeets, including the Blue Mountain, and, so far as my experience goes, female Lorikeets usually seem to find that our climate, taken *au naturel*, is too cold for egg production. Perhaps, if Mr. Farrar were to try a little heat, he

might find that, even with him, Blue Mountains were not "very shy and difficult breeders."

The length of time that some of the Lorikeets have lived at the Zoo, is remarkable.—REGINALD PHILLIPPS.]

SIR,—I have had a pair of these beautiful birds for nearly three years, and have never detected the slightest difference in appearance, except that the blue lacing on the edges of the orange-red breast feathers is a trifle more pronounced and the green collar rather yellower in one. I have no guarantee that they are a true pair, except that they often break off feeding to kiss and croon to each other: that is, they link their coral beaks together and talk in a gentle rasping tone, which is no doubt melodious to them but sounds to me as if they wanted their larynxes oiled.

Circumstances compelled me to keep them the first eighteen months in a 14in. round parrot cage, and since then they have been in a 16in. square cage: some day they hope to be in an aviary. I am doubtful whether two of one sex would have agreed together so long in such quarters.

They are delightfully healthy and hardy. When they were in the small cage I used to put it once a week in the bath, and pour several gallons of cold water from the tap on to them, or half fill the bath and roll the cage in it until they were drenched to the skin. Now there is room to get a deep porcelain dish in the cage, through which they slide their bodies time after time in a most comical manner, until they have emptied every drop of water and splashed it all over the floor.

When I first bought them the dealer of course told me to feed them on hempseed with a little canary. I am glad I took Mr. Fillmer's advice and removed the hemp, leaving the canary, but making the staple food of biscuit soaked in HOT milk. Every morning at breakfast I put a potted-meat pot on the trivet with six to seven teaspoonfuls of milk in. By the time breakfast is over, this is hot enough to have skimmed over and will not turn sour in summer. Then I add three teaspoonfuls of a mixture of thin arrowroot and milk biscuits crushed to a powder, and a quarter to a third of an average banana mashed up with it. This, with six spoonfuls of canary seed in the seed tin, keeps them robust and flourishing all the year round. The only change I have ever made has been to substitute stewed apple when I have run short of banana, or go without altogether occasionally.

I sometimes put coarse sea-sand into a tin, but they only amuse themselves by transporting it grain by grain into the water bottle or food pot. I often sprinkle powdered cuttle-fish bone into the soft food to supply lime. Pine sawdust in the tray, and willow branches to peel (they have already craned their necks through and peeled the wall-paper off).

I am not given to exhibiting, but sent the pair, last October, to the Leeds big exhibition, and was quite surprised to receive 2nd prize for large foreigners: the 1st going to a Giant Macaw exhibited by Mr. Osbaldeston, who wrote about the Swainson's Lorikeet in the June number.

A. A. PEARSON.

COCKROACHES—AN APPEAL.

SIR,—Can you very kindly procure me the address of some person who will supply me with cockroaches.

G. C. PORTER.

The following reply was sent to Mr. Porter :

You have asked a hard thing. On several occasions I have made special endeavours to obtain cockroaches, offering liberal remuneration but have invariably failed.

On one occasion, some years ago, I remember that some one, in Bath I think, offered to forward cockroaches at so much a hundred.

I will endeavour, by publishing your letter in our Magazine, to find out if any one is known who will help us in a similar manner this summer.

REGINALD PHILLIPPS.

BREEDING PARRAKEETS.

Being most anxious to include in my book on Parrakeets all records of the breeding in captivity of rare species, may I ask members who have bred any of the more uncommon kinds to communicate with me on the subject?

D. SETH-SMITH.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

BICHENO'S FINCH. (Mr. N. O'Reilly). In owner's possession a week; appeared quite well; suddenly found dead. [Acute congestion of the lungs caused death. It was a hen].

BLUE ROBINS. (Mr. Mathias). [The cock died of acute inflammation of the liver, the hen of concussion of the brain].

BUDGERIGAR. (Mr. M. E. Rycroft). Found dead. [Cause of death was acute inflammation of the bowels].

HARDWICK'S BULBUL. (Mr. T. Turner). Purchased April 25th; apparently in perfect health until two days before it died; became inactive and lost appetite. Was fond of cockroaches and perhaps over-indulged. [Cause of death was apoplexy. I am inclined to think your suggestion is correct].

Hen PAINTED QUAIL. (Miss Ashford). Appeared well day before it died; fed on seed and an occasional mealworm. [Cause of death was acute pneumonia, no doubt due to cold].

ORANGE-CHEEK WAXBILL. (Mr. A. Simpson). Had been transferred to an aviary in which were Weavers, etc. [Concussion of the brain, possibly caused by a peck from some of the stronger birds].

ORANGE-FLANKED PARRAKEET. (Mrs. Connell). [This bird died from inflammation of the bowels].

TWO YOUNG ZEBRA-FINCHES. (Mr. Maxwell). Found dead on the floor, had just left the nest. [These birds died from want of nourishment, most likely owing to their leaving the nest too early and their parents being neglectful as to their feeding].

ST. HELENA WAXBILL. (Mr. A. F. Wiener). [Jaundice was the cause of death].

HEN BUDGERIGAR. (Mr. A. J. Salter). Found dead; has just reared two young, now five weeks old. [Concussion of the brain, caused by direct injury to the head, was the cause of death].

TWO PARSON FINCHES. (Miss M. H. Woods). No. 1 newly purchased, No. 2 in owner's possession two years; both developed same symptoms and died same evening. [Both birds died of enteritis. No 1 was much emaciated, and the symptoms point to contagious disease. Bake or destroy the cage. See Rev. C. D. Farrar's advice, p.162 of this Magazine.]

HEN BULLFINCH. (Mr. N. S. O'Reilly). Died suddenly when building a nest. [Death resulted from apoplexy].

HALF-MOON CONURE. (Miss Alderson). Found ill and unable to fly, died in a few hours. [Enteritis, or inflammation of the bowels, was the cause of death].

BULLFINCH. (Mr. W. G. Percival). [This bird had received an injury to the end of its beak, which was fractured at its junction with the skull. The cause of the eye being swollen, was extravasated blood into the orbit].

PARSON FINCH. (Miss Woods). Died in a few hours after purchase. [Concussion of the brain caused death].

RUSS' WEAVER. (Mr. R. Phillipps). In owner's possession three years; quite well until three weeks before it died; it became less lively and sometimes puffy. [Congestion of the lungs was the cause of death; it also had fatty degeneration of the liver].

YOUNG BUDGERIGAR. (Mr. C. P. Arthur). Just left nest. [Death was due to pressure on the brain, resulting from extensive extravasation of blood over left side of head, caused by an injury].

WHITE IBIS. (Lady Sutton). Seemed in usual health when fed in morning, but was found dead in the afternoon. [Death was caused by external violence, there being extensive extravasations of blood over the region of the abdomen, neck, and head].

CORDON BLEU. (Honble. LILLA DE YARBURGH BATESON). [Immediate cause of death was congestion of the lungs. Inability to reproduce feathers on the head was doubtless due to constitutional debility. The deformity of the beak was caused by an injury at the base, which prevented the normal production of bone-structure].

CALIFORNIAN QUAIL. (Mrs. Stanyforth). [Death was caused by tuberculosis of the liver, bowels, and lungs].



H. Goodchild, del. et lith

Miner Bros imp.

BROWN'S PARAKEET. ♂ ♀
Platycercus browni

From living specimens in the possession of Mr. D. Seth Smith

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BROWN'S PARRAKEET.

Platycercus browni (Temm.)

By D. SETH-SMITH, F.Z.S.

The fine Broadtail, which forms the subject of our illustration this month, inhabits the North of Australia, from Port Darwin to Port Essington. Gould writes:—"This is a very abundant species on the Northern and North-Western coasts of Australia, where it inhabits grassy meadow-like land and the edges of swamps, and mostly feeds upon the seeds of grasses and other plants, sometimes it is seen in pairs, but more frequently in families of from ten to twenty in number. It frequently utters a rapid succession of double notes resembling '*trin-se trin-se*.' Its flight is low, somewhat rapid and zigzag, seldom farther prolonged than from tree to tree."

The first living specimens of Brown's Parrakeet I ever saw, were a pair exhibited at a bird-show at Balham, on the 7th of November, 1899, and these were probably the first living specimens seen in England. Soon after this two pairs were deposited at the London Zoological Gardens by the Honble. Walter Rothschild. At the present time there are perhaps half a dozen pairs in the country.

Mr. Goodchild's excellent drawing renders a description of the colours unnecessary, but I may remark that individuals differ greatly in markings. One specimen figured by Gould, has a considerable amount of red on the head, and some examples have many of the feathers of the breast and back washed with blue. According to Gould the young are similar to the adults, but all the markings are dull and indistinct.

Mr. Campbell tells us that the nest and eggs are, as yet, undescribed; but there is little doubt that the nesting arrangements of this species do not differ from those of the other members of the genus, which it resembles very closely in everything but its colours.

I have not found this species delicate, although it inhabits a hot region. My pair were kept indoors during the winter months, but were transferred to an outdoor aviary in May, where they did not seem to feel at all discomforted by the December-like weather which prevailed during a great part of that month.

They are lively and engaging birds, and at times whistle very prettily. The cock is, I regret to say, occasionally, a little troublesome with the other birds; he has up to the present committed four murders,—a Chinese Quail, a Red-backed Bunting, a Zebra-finch, and a Budgerigar. I have often seen the pair examining nest boxes, but they have not, as yet, decided upon one for a future brood.

Canary, millet, hemp, oats, sunflower, and such like seeds form the staple food of my 'Browns.' They are not especially fond of fruit, except grapes, of which they ate a number in the winter, when green food was scarce. Their favourite green food seems to be chickweed, a bundle of which is now supplied to them every day.

Although not so brilliantly clad as some of the *Platycerci*, I consider the "Smutty Parrakeet," as the Colonists call it, one of the most beautiful of the genus; a genus which, I must say, I am very fond of, in spite of the fact that some writers have called them 'uninteresting' and 'unintelligent.'

BREEDING THE MANY-COLOURED PARRAKEET.

By the Rev. C. D. FARRAR.

I hardly like to remember now how many years it is since I possessed my first Many-Colours. I remember distinctly the first time I ever saw any alive. It was at a shop in the West End; and by their sick and sorry look they reminded me at once of the chant of the Roman gladiators, "Ave, Cæsar, morituri te salutant." As, I believe, the price asked was £10, I did not invest in them, but I fell desperately in love with them. It was a genuine case of love at first sight, and I made up my mind, if I could ever afford it, to get a pair.

Many-Colours are very hard to get and still harder to keep. Only a very few come over every year, and these are eagerly snapped up by rich people at prohibitive prices.

The first time I had a chance of any was about five years since. A friend who used to go to Sydney wrote to me from Port Said that he was bringing over six Many-Colours: four

hens and two cocks. Would I like them? I wrote a big "Yes," and anxiously awaited the next news. Alas! it was sad when it came. The cock Many-Colours had all died in the Mediterranean. Would I have the hens. I said I would. One morning they arrived quite safely. For weeks I kept them indoors, and as the weather got warm (it was Xmas when they landed) I put them out of doors. How I used to watch them; how I hoped against hope that one might develop into a cock. I thought it had a rather masculine head and a rather brighter shoulder patch, and—I wanted it to be a cock so *badly*, but it was no good; they all remained of the feminine gender. Of the four, two, alas, died. Some disease of the throat carried them off. If you see a Many-Colour with an apparent difficulty in swallowing, make up your mind to lose him.

Where was I to get a cock from. I wrote to my friend Mr. Savage, but he could not help me. "Many-Colours are," he wrote, "as scarce here as in England. I have not seen any offered for years." Then I wrote to Mr. Pekholtz. Could he help me? No! But he gave me the address of a German dealer who sometimes had Many-Colours. I wrote off; and after a time got the offer of a cock at a very great price. They say "a fool and his money are soon parted;" they were in this case. I sent off the money and the Many-Colour arrived. He "had been" a good one, but was so no longer. Moreover, he had that horrid difficulty in swallowing. I tried to think he was healthy, that it was only the infirmity of a noble mind, but in my heart I knew better, and I felt that the days of mourning were at hand. They were. He lingered about a fortnight, and then I had a lovely corpse! Months now passed away, and there was no sign of a Many-Colour anywhere.

One morning I got a post card from the celebrated J. D. H. : "Am sending you two cock Many-Colours." How my heart went pit-a-pat. Alas! when they came, and I opened the cage, one was quite dead. He was such a beauty too. They had arrived by the last train at night, and were not delivered till the next morning. The other, I was delighted to see, was equally good as his dead brother, and seemed all right after a rest and some needful refreshment.

For a long time I kept him in a cage, as I did not dare to trust his precious life to our abominable climate. The two hens wintered out of doors, in separate compartments, as they did not seem very amiable. As the spring advanced last year, I suddenly missed the younger hen. I feared she was dead, or had got out

of the aviary somehow. What was my delight and astonishment, after a long and careful search, to find her sitting hard on four eggs. She was sitting so close that she even allowed me to pull her off the eggs. (What a treasure this bird would be to some of our members, tame and warranted to like being taken on and off her eggs). She sat steadily, but, of course, with no result. Just as she had done sitting I got the cock. Too late of course, and a season gone.

Any intelligent man will understand that it was a situation calculated to amuse the ungodly, but without any real fun in it. I know I felt as melancholy as if I had been editing a comic paper, but there are limits even to depression, and after the most awful fit there surely comes the rebound, as certainly as day follows night.

However, as the season advanced, I put out the cock with the old hen, as she had not nested, thinking she was the most likely of the two to do so. With the perversity of the male creature, the cock did not approve of my selection. You remember that when Alcides, having gone through all the fatigues of life, took a bride in Olympus, he ought to have selected Minerva, but he chose Hebe. So did my cock Many-Colour. He evidently, like Jacob, preferred Rachel to Leah. He was always seductively whistling through the wires and making love to the younger and fairer lady; and so, at last, I had to let nature have her way, and transferred Leah from his side and substituted Rachel. Leah did not take at all kindly to the arrangement, and but for the dividing wires I would not have been answerable for the consequences, as the police say.

Nothing further happened last year in the way of breeding, but the happy pair passed all the winter out of doors in the most perfect health and contentment.

The Many-Colour, I may say in passing, is a very frugal liver, and a plain and simple diet suits him admirably. All that mine have in the way of food is Indian millet, canary seed, and soft food mixture if they care to take it.

Many-Colours may be safely trusted with the tiniest finches. This year's breeding operations commenced very early. It must have been early in February (bitter cold weather) that the hen disappeared into a log. I feared the result—infertile eggs. It proved I was right, for when she gave over sitting I found five clear eggs in the nest.

After a very few days, my experienced eye saw that a second batch of eggs was in preparation. Soon Mrs. Many-

Colour disappeared once more, and hope and expectation ran high over again; and again she left her lord and master "alone in his glory."

How long and weary the weeks of waiting seemed. At last one day, I fancied I heard the well-known noise that young Parrakeets make, which once heard is never forgotten. It was days before I heard that sound again. You may listen for hours and you will hear nothing. The old birds signal the youngsters to shut up if anyone is about. If you hear them it is only by accident.

One day I saw the cock slinking out of the nest in a most apologetic way. I wondered what he had been in for, as when the hen wants feeding, she always comes off to be fed. I hoped that he had gone to feed his family. Later on I found out that he had. The moment I suspected youngsters I gave green meat *ad libitum*. During early days the young are fed on little else and egg food.

How can you tell when there are young ones about? Some people say, "Go and look in the nest." Wisdom says, "Do nothing of the sort. Watch for signs."

When you see a cock Many-Colour, or for that matter any other Parrakeet, eating all day long against time, or as if there was no hereafter, you may be certain of one of two things. He is going to die, or he has a family to provide for. As my cock looked the picture of health, I took the latter view.

This is not intuitive wisdom, but gathered slowly and painfully among the thorns of experience. My duties now blossomed forth like Aaron's rod, and I became in turn feeder, watcher, and general supervisor.

For weeks I literally lived on thorns. Was all my labour for nought! Should I just take one little peep, like Bluebeard's wife? Curiosity said "Yes." Prudence whispered "No." Prudence won the day.

One morning in June, as I entered the aviary at 8 a.m. there was a rustling demonstration of surprise, such as you may have observed in a country congregation, when they hear an allusion to their week-day sins from the pulpit. Mr. and Mrs. Many-Colour were running about and calling to each other in the most frantic and excited state of mind, and I was not long in perceiving that the cause of all this parental joy and fussiness was the advent of a beautiful Many-Colour. I never saw a youngster that could fly so swiftly and well from the first.

Many young Parrakeets go back to sleep in the nest for

quite a long time. This one never did. The reason may have been that the hen went to nest again about a week before it came out, and she is now sitting steadily on a *third* batch. In the second batch there were three eggs—two clear and one youngster. The young one is a hen.

When I went into the house and told what I had found, neither Demosthenes, nor a Nationalist Member at a Cork Election could have been listened to with more gratifying attention.

Mr. Many-Colour is left in sole charge, but the youngster is quite able to scrape for itself now, and is highly proud of itself as the first Many-Colour ever born in the British isles. As I look at her, I lift my hat reverently and whisper, *Laudate*. I feel almost like Jeremy Taylor's widow—that I may now almost sit in a clean apron, and my hands folded, and my work done.

I hope my readers will all go and endeavour to follow my good example. All that you require, as I saw in the *Feathered World* last week, is a pair of Many-Colours, a small barrel on end, a large garden aviary, and—that was all! I fancy my readers will say there is something else.

As I have seen several sneering remarks of late that my success is due to my *immense* aviaries, I should like to say that I have *none*. The aviary in which the Many-Colours bred is about six feet square.

I have just (July 1st) been looking at the young Many-Colour. She is about three quarters of the size of the parents. Beak, flesh colour; eye, black; the red mark on the head very faint and indistinct at present; the breast, pale mauvish green, verging into yellow green below; the breast crossed with tiny lines; flights, dark blue; the shoulder has the pale red patch; under tail blue. This is only a rough description, as it is difficult to describe shades of colour in words.

THE ST. HELENA SEED-EATER.

(*Serinus flaviventris*).

By W. GEO. CRESWELL, M.D.

With all my love of birds it has unfortunately happened that I have never had access to good or rather to full books on my favourite hobby, and that, therefore, much that I know has had to be ground up, by slow degrees, so to speak, from a mixture of practical knowledge and stray bits of information. The hope, therefore, that I may be of some help to those situated like

myself must be taken as my excuse for much of what will perhaps appear to be too elementary in the following lines.

The Serin under consideration, like many another bird, has by no means always been constant in its name, either scientific or trivial. I have identified it in the Natural History Museum under the title of Yellow-browed Seed-Eater, or *Crithagra flaviventris*, of which the English name seems to be on every hand much more scientific than the one generally adopted; dealers have sold it to me as a Cape Canary; and I have purchased it from a gentleman who brought it from Vryburg and who knew it only by its local name of Scasie or Scasies. Dr. Butler, in his valuable paper on South African Cage-birds, speaks of it as the Kleine Seisje;—may it be that Scasie is the phonetic rendering of the latter?

The size of the bird is a trifle in excess of that of our Linnet, to which the hen has some resemblance at a little distance. In build it is stout and in its lines not too graceful. The beak is short and thick, and when open the edges are seen to curve slightly downwards, as also does the culmen or upper ridge of the upper mandible, which latter is dark while the lower one is horn-coloured.

The crown of the head, nape, and back are green, with dark pencillings. A pronounced yellow stripe crosses the forehead and is continued over the eyes. The chin, breast, and under parts are yellow with a green tinge in it, especially an ill-defined patch in the middle of the breast which shows up as almost distinctly green. From the base of the lower mandible there runs obliquely downwards and backwards a dark green moustache mark. The wing coverts are green—the secondaries black with pale greenish grey outer edge. The primaries are the same except that the edging is narrower. The tail feathers are the same colour as the primaries, with the upper coverts green and the lower ones yellow.

The female is slightly smaller and much more sombre in colour. Her upper parts are dark grey with a decided green tinge in it and pencilled in a darker shade. The breast and underparts are greyish—somewhat indistinctly pencilled and showing no indication of yellow whatever. A darker shade shows up an attempt at moustache marking, and an eye mark can be detected in some lights.

There would seem to be a considerable amount of difference between individual specimens of this bird. For instance, the one from Vryburg is larger and has the eyebrow and forehead

stripe wider than seems usual. In addition to this the upper parts are darker as to the green, while below the yellow is deep and bright, the diffused green tinge in the centre of the breast being entirely absent. His hen, while a complete replica of the others as to shape and markings, was brown rather than green in the general colour, this brown becoming almost ruddy brown about the head, throat, and underparts. She was also white-legged, but this may perhaps be accounted for by their having been house-moulted in a small cage. Still, in spite of this, the cock's feet and toes were black. Since this Serin is universally found over the whole of the Cape Peninsular and from there to the British Protectorate, the slight variations in colour may be due to local environment.

Both sexes of this species (but especially the male) have a queer way of flicking or flirting the tail up and down, the down stroke being rather accentuated; while the cock, when excited, has the most extraordinary trick of humping himself up and elevating one or other side of the body in the funniest possible manner. As may be imagined, a gentleman who so comports himself is not too amiable towards his wife or any other bird, but a Green Singing Finch may be relied on with every confidence to bring him to a more humble bearing. As far as I can judge from the specimens I have had, these birds are easily tamed and become very steady. One cock that I kept indoors for a time would sing anywhere the cage was put and has trolled forth many a stave on my dinner table by gaslight and within a couple of feet of myself. The song is clear, well sustained, powerful, and yet sweet and quite free from any shrill and ear-piercing notes.

Altogether I have had three pairs of these birds, and although they have been out in aviaries I have never seen the slightest attempt at building. One hen, however, is most friendly towards any young birds that may be about, and is apparently never so happy as when she is feeding them. She even fed a hen Sulphur Seed-eater that was not well, and it was quite pretty to see her stand close up to the poor thing that had its head tucked under the wing and presently gently pluck it by the shoulder to wake it up and then proceed to feed it. She would then turn round to be fed herself by her Platonic lover, an English Linnet, to whom she has been warmly attached all the spring and summer.

I have said that the cock is a more than pleasing singer, but that only applies to indoor cage life. In an outdoor aviary

with other birds I have seldom heard or seen one sing, although in the absence of a male bird I have heard the hen give out a distinctly pleasant though low-toned imitation of her lord and master.

I wish these birds were more freely imported.

NOTES ON DOVES.

By ROSIE ALDERSON.

Foreign Doves and Pigeons have always had a great fascination for me. In several ways they have advantages over other species of birds. Most doves are hardy (at least the larger kinds), healthy and long-lived. They are easy to keep, and many kinds will breed freely in confinement. Doves seem to adapt themselves to captivity more easily than many other birds, and though Doves and Pigeons are but soberly plumaged compared to the gorgeous colouring of the Parrakeets, yet the beautiful blending of their quiet tints is very restful to the eye.

I have kept Doves now for nearly four years. At the present time I have eighteen varieties; and in these few notes I purpose to first tell you how I keep them, and then give a short account of each kind of bird. It may be useful, too, to give about the value of the different Doves, not as a strict guide, but only to give some idea of their worth to any member who may be thinking of getting the same varieties.

To begin with, I keep all my *larger* Doves in outdoor aviaries all the year round, exceptions only being made if a bird is getting old and feeble, or if it is purchased newly-imported in winter. In the latter case I should probably keep it in my heated aviary until the spring. My outdoor aviaries, of course, have shelters provided, but I find the birds use them very little, preferring to sleep in the fir branches outside in the flights. Fortunately I live in a well-wooded county where there is no difficulty in getting a load of fir branches—the price being 10/- for a large load, including cartage. The most durable kind is that known as the Scotch fir. The “needles” stay on for a long time, and do not fall off nearly so quickly as in the case of some of the other varieties of fir. This is a very great advantage as the thickness of the boughs affords protection from the cold in winter, and privacy during the nesting season. My bird man, George Hallam, is very skilful at fastening up these branches on the walls of the aviaries, by means of driving in a long nail and lashing the boughs to it with wire. Of course all ends of the

wire must be turned in so as not to injure the birds in anyway. The branches are usually renewed twice a year, in spring and autumn, and are wired several feet clear of the ground. Sometimes, if heavy, they require wiring in one or two places. By keeping the boughs well off the ground it gives more floor room, and also hinders mice from easily running up them.

I find, too, that Doves usually prefer to nest high up, often almost close to the roof. The branches should not be all fastened in the same place, but in different parts of the aviary, and I always help and arrange with the fixing of them myself.

Doves are strange birds, and you will find many of them have one special bough for roosting on, and if another bird comes near it quarrelling will ensue, so it is best to put the branches in different corners. Doves are noted for their fragile nests, some of them so frail that the eggs can be plainly seen through the bottom, and it is a wonder the structure holds together. Some few years ago I learnt wicker basket making, and I have found it come in most usefully in making shallow nest-holders (shaped like a large saucer) for my Doves to build in. These baskets are easily fixed to the branches by passing string through the wicker in several places, and I find the birds appreciate these nests very much, and seldom build except in one of them. After the nesting season is over the baskets are taken down and well washed, and put away until required again. With care they will last for years. Doves delight in a particular kind of dead heather to build their nests with, and every year I get several bundles in good time for the nesting season, from a lad named Hiscock, of Ashley, Ringwood, Hants. The heather should be separated before being given to the birds, care being taken that the pieces are not too long.

It is very pretty to watch the cock Dove carrying up the heather, whilst his lady sits proudly in the nest, and tucks each piece in as he brings it. He is very critical, and it is amusing to see how he will pick up bits of heather and then toss them aside again and again until he finds a piece that pleases him. Both birds look so happy and important, as if for the time being they had quite forgotten their liberty and their home across the sea. The amount of heather a single pair of birds will use for their nest is really astonishing. In keeping Doves, as indeed with any other bird, if you want to succeed you must study their little ways, however eccentric they may seem, or you cannot hope for good results. I have found it a good plan to observe which is your pair of birds' favourite bough ;

there tie up your basket, and then in all probability a nest will be built in that particular spot almost at once. When your birds begin to sit keep them as quiet as you can. On no account turn any strange birds into the aviary, nor attempt to catch any of the others.

Doves are very nervous birds, and if one is frightened it will infect all the rest, and there will be a general panic, and your nest will be probably deserted, and it is *very* seldom a Dove will return to a nest it has once left, unless it is very tame. Two eggs are generally laid, and sitting lasts seventeen to nineteen days, in some cases possibly a little longer. The eggs are pure white, and of course vary very much in size and shape. When catching a bird, it is safer to use a trap cage, which can be made at a small cost; but failing this if a bird is caught in the hand it should be well grasped over the back, so as to keep down the wings. If this is not done they will probably be injured and the bird be unable to ever fly again. Some time ago, before my trap cage was made, I was moving a hen Crested Dove to another aviary. She was caught in the hand, and somehow in catching her she hurt her wing. The cause must have been very slight, for we had no idea she was injured in any way until she was let loose in the other aviary. One wing has been useless ever since; it does not droop, but never fits *quite* closely to the body. The bird never looked ill, and has always kept healthy. As she could not fly, I tied her a long bare bough placed *very* slanting from the aviary floor to the fir branches above, as a sort of ladder. The hen soon learnt to climb up into the boughs, and had several young ones in a nest quite high up. This plan might be adopted, too, for birds that have lost their wing power through age. All my large Doves have for their staple food a mixture of wheat, dari, hemp, and a little rice. The smaller Doves have canary, millet, etc. Both large and small are *very* fond of crushed "broken biscuit" which may be had from a grocer at 2d. or 3d. lb. I grind it into small pieces in one of Spratt's biscuit crushers, ("The Enterprise,") and I think this addition to their seed diet keeps the birds in good condition and their plumage very glossy. As well as biscuit the birds are, of course, furnished with grit and ground cuttle fish bone. I had some small tins made and two of these are hooked on nails in each aviary a few inches from the ground, one tin being for biscuit, the other for grit.

In my larger Doves' aviary the roof is of glass, and stretched tightly across it (a few inches under the glass) is a

lining of canvas muslin (known as strainering). This is a great protection to any bird that might fly suddenly upwards, and otherwise injure its head. Cats and rats are great enemies to the inmates of our aviaries. To keep the former from frightening the birds at night, I have either a curtain of sheeting (run on a wire with rings, and fastened tight with hooks and rings) or else blinds that are let down at night. I think the former plan is the best, as the curtain is simple to make and can be tied back during the day. Besides keeping the birds quiet this serves as a protection from the cold in the winter months. Before I adopted this plan the cats used to frighten the Doves very much, though they could not actually get at them to do any harm. The birds would dash wildly about, and cut their wings against the wire netting.

Rats are more difficult to deal with. It seems impossible to be really free from them, as they will always find out where there is grain. The aviary floor must have a good layer of cement, or if this cannot be done it must at least be underlaid (if the floor is of grass, wood, or earth) with fine wire netting. Tiles are not as good as cement for a floor, as the rats can burrow under a tile and cause it to sink. A rat can easily kill a Pigeon, but oftener it seems to maim them. I have at present a hen Bleeding-heart Dove that belongs to a friend. This bird at some time or other has been nearly scalped by a rat (I believe I was told the cock was killed outright), and the head has been partly bare of feathers ever since. I remember when a child we kept some Nun Pigeons. In those days my only idea of a bird was how to love and pet it, not to study how to keep it properly. One morning we found our poor Pigeons had had their claws bitten clean off by a rat, but it had not injured them in any other way. A few days later, to our great joy, the culprit was found fast in the wire netting roof. It had got its head through and could not get it out again. You may be sure it never had the chance of harming our pets a second time. When you think what fearful agonies the poor imprisoned birds must go through, with the knowledge of an enemy from whom they cannot escape, surely if alone on that account it is only right to thoroughly protect an aviary from such vermin.

Next month I hope to describe shortly my different Doves. The following are the kinds I have kept so far. Of the small varieties Passerine, Picui, Masked, Diamond and Tambourine Doves. The larger birds are the Triangular Spotted Pigeon, Necklace, White-winged, Senegal, Australian Crested, Bleeding-

heart, Violet, Indian Green-winged, Aurita, Turtle, Half-collared Turtle, Barbary Turtle, Blue-headed Turtle, and two kinds sent me just lately from Africa whose names I am not sure of.

A TRIP TO AUSTRALIA.

By GEORGE CARRICK.

A short sketch of a trip to Australia and back with, I might say, the birds of all nations, would make a most interesting paper, if in the hands of one who could do justice to the many little episodes met with. We left the Mersey last December, with a very varied stock, including most of our British Finches and a few soft-bills (among the latter a Yellow Wagtail, 1st in its class at the November Aquarium Show), Siberian Bullfinches and Goldfinches—Bishops, Whydahs, Nonpareils, Cardinals, Amazons, Macaws and Grey Parrots, and a few prize poultry, Pigeons and Canaries, and one Diana Monkey; supplementing the collection at Madeira with a few Goldfinches, Mules, Conures, and Peach-faced Love-birds. But the most interesting addition, and one worthy of particular note, came on board of its own sweet will, in the shape of a common Nightingale. I say *particular* note, because of our position at the time, viz., Lat. 39°03 S., Long. 26°46 E.—306 miles from the nearest land and almost due South of Port Elizabeth, South Africa. Needless to say he was immediately captured and caged, and with a plentiful supply of mealworms he was soon quite at home and seemed most thankful for the little kindness shown him, taking readily to artificial food. He became very steady in a few days, and ultimately shared the same home with the Yellow Wagtail in Melbourne. I may here mention that I have visited Mr. Archie Campbell, author of “Birds of Australia,” who invariably looks me up on arrival, and is always delighted with a view of my collection of “the Old Country” birds. British birds stand the variable changes of climate on the onward journey exceedingly well; the same might be said of most of my outward stock, with the exception of Grey Parrots. When we call at the Canary Islands I always purchase my Greys there, and they generally live well; last voyage I purchased thirty-five at Las Palmas and lost only one bird. When instead we call at Madeira, where Greys are only to be purchased in units and always at high prices, I procure them in Liverpool before leaving home, at least, I have done so three times now, and each time with disastrous results. The first time 30 Greys—30 deaths; second

time 50 Greys—35 deaths; and on the voyage just completed 36 Greys—35 deaths; the 36th bird and only survivor was one purchased privately.

Australian birds as a rule take more readily to confinement than Britishers, although there are a few which never seem to take to it. The Many-coloured, Barnard's, Blue Bonnet, Mealy Rosella and Crimson-wing Parrakeets are always hard to cage off. Among the small fry the Crimson Finch stands out pre-eminent, as a difficult subject, followed closely by the Sydney Waxbill and Bicheno's Finch; the latter at certain seasons only, however; at other times it lives splendidly, as was the case with a lot I brought home last voyage; I had 264 on hand when leaving Queensland, and lost 14 only. I fed them on Hungarian millet and spray millet; they would never look at white millet or canary seed. Hungarian millet I buy in Australia, and am forwarding a sample to our Editor who may be able to ascertain its proper name.

I am repeatedly asked to bring home rare Parrakeets, such as Turquoisines, Grass, Elegants, Paradise, etc., and, prior to taking our departure each voyage, I write to all dealers of any note to secure me such, but invariably with the same result; nearly all the rare birds come from far inland and from most inaccessible spots; consequently very few catchers venture so far, or could even afford to do so. One enterprising party springs up occasionally who has a good supply of real gems, but it may be years before another will venture so far; hence the reason we see a quantity of rare birds in the market to-day, and perhaps, years may intervene before they appear again. The droughts often have a lot to do with the changing of breeding grounds making migration compulsory.

The most desirable of the soft-bills are to be had in the winter months, near the coast, but they seem to go inland during the nesting season; and it is hard to get them to England. The great difficulty is the differences of season, and scarcity of mealworms when the best soft-bills are obtainable. This last voyage I took out with me five quarts of mealworms, besides a plentiful supply of egg-yolk and ants' cocoons (none of which can be bought in Australia), and only secured a few Superb Warblers (*Malurus cyaneus*), one Whip Bird (*Psophodes crepitans*), one Regent Bird (*Sericulus melinus*) and a few common kinds. Next voyage, leaving here at the beginning of July and returning in December, I could secure no end of lovely soft-bills, but one will easily see wherein lies the difficulty; during these

months mealworms are out of season, and without these it is hopeless to keep insectivorous birds on a sea voyage of such duration.

I meant last voyage, to visit all the Australian Zoological Gardens, and thought to have some pleasant recollections thereof. My first and last outing was at the Adelaide Zoo, where I spent a "woofu" half hour; the ground inside all enclosures seemed very hard and thoroughly dried up; and about one-third of the enclosures were empty. As for birds they were few and far between, and *all*, without exception, in a miserable state. I have often seen them better cared for in an East-end dealer's shop.

One aviary contained about 30 of the Cockatoo family, comprising Lemon-crested, Rose-breasted, Slenderbills, and Leadbeaters; another aviary contained a few Cockatiels, Rosellas, Adelaide Parrakeets and Pennants; another contained three Blue and Yellow and one Red and Blue Macaws "all in a row," depending one on the other for support on the perch, and all in a half-nude state. The largest and most interesting aviary, if one could centre a little interest in any of them, contained a mixed collection of common Australian Finches and a few Cardinals, with one or two Pectoral Rails and a few Plovers. Two more aviaries, with fronts covered in, were shaped to imitate the doors of a marquee drawn on one side, and the whole was painted in a very inartistic way with broad bands of blue and white and red and white, and contained a few Doves and Pigeons, and were tenanted on the ground with an abundance of mice, which seemed to attract more attention from visitors than the winged inhabitants. A great deal of time and expense has apparently been spent in trying to decorate the different houses outwardly: for instance, a wooden house built to represent a cottage or villa, and painted to imitate a brick erection with windows painted in and curtains half drawn, and a miniature fence run round and painted green—all seemed to be got up to please the juvenile eye. I am sorry to have to write in such a deprecatory manner of a spot where one would most expect to see the rarest of the rare Parrakeets. After this experience I could not be tempted to visit either the Melbourne or Sydney Zoos. I did visit the Melbourne Zoo some three or four years ago, and it was then far ahead of what Adelaide is now.

[We forwarded the sample of millet seed to Messrs. Sutton and Son, of Reading, who very kindly inform us that the botanical name is *Setaria germanica*—German, or Hungarian Millet.—ED.]

THE NESTING OF THE CAT-BIRD.

By the Rev. C. D. FARRAR.

For weeks I have been toiling like Cicero in his retirement at Tusculum. The cause of my toil has been a pair of American Cat-birds bent upon reproducing their kind. A wise man has somewhere said "that if you want to know what a man is, examine his castles in the air." Here is one of mine, to breed the American Cat-bird.

Somewhere about the beginning of May my Cat-birds set about founding a dynasty. I had kept them all the winter in my bird room, intending, when what Fox once called "this little shower" has stopped, to enlarge them out of doors. Apparently they got tired of waiting for the improbable; for one day when I went up to feed them, I was surprised to find Mrs. Cat-bird trying to build a nest with orange papers I had dropped on the floor after feeding the Tanagers. A bird, I thought, that will do this deserves encouragement. Accordingly I went out into the garden and found a deserted Blackbird's nest. This I pulled to pieces and scattered the fragments over the floor. The hint was not thrown away and Mrs. Cat-bird at once set to work to construct a really beautiful nest in a bush. Externally it is composed of dead leaves and stalks of grass, and is smoothly lined within with the finest fibres. The building operations occupied about three days and then there was a solemn pause of expectation. About the fifth day, on looking *casually* into the nest, I was delighted to see a beautiful blue egg almost exactly the colour of that of our own English Hedge-Sparrow, only slightly larger and rounder in shape.

Two more eggs were laid on successive mornings, making a total of three in all, and then the hen sat steadily. A difficulty now presented itself. I had a number of Buntings flying loose in the room with the Cat-birds, and I knew that if they were allowed to remain, they would eat a large share of the live bait intended for the young Cat-birds *in fore*. This I naturally wished to prevent. I saw therefore the only thing to do was to catch up everything but the Cat-birds. This entailed a great risk, as in catching the other birds I might frighten the Cat-birds; but if I left the other birds I should probably starve the young Cat-birds. I remembered the old saying—of two evils choose the lesser. I fetched the net and set to work catching. Incredible though it may seem to my readers, the hen Cat-bird took no notice of all the row (for you are bound to make a row, catch birds as deftly as you like) but continued to sit steadily throughout the

performance. The cock did seem a bit scared and made himself as small as he could up in a corner. Talking of the cock, I may say in passing that he is, without exaggeration, one of the sweetest and most refined singers I have ever heard. I far prefer him to the Mocking-Bird, and I fancy that he can run our English Nightingale very close. He sang most beautifully before the nesting began, but has been silent since.

At the end of about twelve days, as far as I can judge, the first egg hatched, followed by the others on the succeeding days. The nestlings, on their arrival in this wicked world, were in a state more approved of by Praxiteles than the general public nowadays, for they were, as they say up here, "as naked as Robins," and of a dull leaden colour.

For more than a week, to be exact, for ten days all went well with the precious cargo. On the eleventh morning when I entered the bird room there was a smell so high that it reminded one of what John Leech once said anent another smell, "I think that stench is strong enough to sketch." With deep sadness I located the smell at the Cat-birds' nest. It made me think of the young lady who once innocently asked her master of Bach, "And pray, sir, what is Bach composing now?" "Composing, madam," came the answer with a roar, "Bach is not composing—he is decomposing"—so was my poor little Cat-bird. It was a sad blow. I felt rather like the late Captain Machell must have done, when the Duke of Hamilton knocked him senseless in the third round, and then standing over him, waited till he came to, and then asked him in the most casual way when it would be convenient for him to rise? However, I had to rise—and go on—I said to myself, *spero infestis*, go on hoping in spite of ill luck; you have two more arrows in your quiver yet. Alas, the next day there was another death. All my hopes were centered now on No. 3. For three days all seemed to go well, and already I saw visions of a "Coronation" Medal; but it was not to be. When I went up to feed on Thursday afternoon, June 12th, I found the tragedy was just completed. Mrs. Cat-bird was off the nest, and when I looked within I saw the poor little body—dead, but barely cold. Marius amid the ruins of Carthage could not have worn a more tragic air than I did when I picked up my poor little departed one. But then we learn by suffering. *Pathemata mathemata*. I thought of what Mark Tapley said to himself on a very similar occasion: "Now, Mr. Tapley, things is looking about as bad as they can look, young man. You'll not have such a opportunity for showing

your jolly disposition, my fine fellow, as long as you live. And therefore Tapley, now's your time to come out strong—or never." Knowing that some people are very incredulous, like certain old ladies we all know, that find it difficult to believe that the train is going direct to the place appointed of Bradshaw, until they have been verbally assured upon the point by two guards, one porter, and a newspaper boy, I took the precaution to send one of the little bodies to Mr. Phillipps to show that I was not romancing. The little birds were getting into quill, colour leaden, beak pinkish, feet flesh coloured and very big for the size of the bird, head covered with a few scanty hairs, like some of us.

I am trying to bear my disappointment bravely, like the Irishman who said that his pig had not weighed as much as he expected, but then he never thought it would!

For those who do not know the Cat-bird, I may add that it is about 9 inches long, clad in a lead-coloured suit, relieved by a black cap on the top of the head, and with the feathers below the tail rusty brown. The top of the tail, the bill and feet are black in the cock, and the eyes black in both sexes. The hen is much *lighter on the breast* than the cock, has *lighter coloured* legs, and *lighter* eyebrows; and, whereas, the head of the cock is very snakey, that of the hen is roundish.

When next I write on my Cat-birds, I hope to be able to record an absolute success. We came very near it this time, and neither men nor Cat-birds can do more than their best. Many a deed is done, recorded only in that Book that holds the names of those—men or animals, souls or no souls—who Tried.

(To be continued).

[Mr. Farrar was manifestly on the high road to recording an absolute success, for the young bird must have been hatched out strong and lusty, and ought not to have died. If it was really some fourteen days old, as I gather from Mr. Farrar's article, it was very backward, which would seem to point to something wrong in the food or feeding; but Mr. Farrar does not furnish any information as to the treatment.—R.P.]

BIRD NOTES.

In the June number of the *Zoologist*, Mr. Robert Service draws attention to a little-known, and apparently recently-acquired habit of the Black-headed Gull, namely, that of capturing moths. He first watched them do this in 1868, but the habit does not appear to have become common until several years later. During the last dozen years the catching of *Lepidoptera*, by the Gulls, after nightfall has become a confirmed annual practice during the months of June and July. Mr. Service believes that

the habit commenced with the capture of the ghost moth, but now every species that can be caught, falls a prey to the Gulls.

Mr. Lanceloth Haslope kindly sends us the following extract from a letter received from his son in India, dated June 13th, 1902. The bird referred to is the Hawk Cuckoo, *Megalaima caniceps*. (See page 203.) "The other day a bird came into a myrtle-bush growing in a tub below my front steps. I thought it was a young Crow; but when I examined it, it turned out to be a Brain-fever Bird. It is a kind of Cuckoo which has a not unmelodious whistle, which it repeats with maddening iteration; hence its common name and the fact that every man's gun is against it. The cock is blackish, the hen spotty, something like a Cuckoo. It comes in the hot weather, when nerves and tempers are worn thin. This one had been abandoned by its parents because the Crows were persecuting it—so my servants said. It was very dragged with wet when I found it, and looked miserable. The Brain-fever Bird I dislike, but I do not love the Crow either, in fact I shoot him whenever there is a caws; and I could not bring myself to leave the poor youngster to his very untender mercies. So I took him in, after trying to get his parents to remove him. He adopted me as his father and mother at once and without reserve; came on to my hand and gave the usual signs of hunger. He has only been with me about four days now, but from the first he has hardly been comfortable when I am in another room. He sits on the back of a chair near me at meals and on a box in my study; I have not got a cage for him yet. He often tries to fly on to my shoulder and head, with occasional success. If I go into my dressing-room he comes after me, with ungainly, frog-like leaps, but is quite happy and goes to sleep when I put him on the top of my looking-glass. He shows perfect confidence in me; even affection; in fact, he is a most engaging pet already. I do not know how to feed him, so he gets about what I do: just now he is particularly full of porridge, which seems to suit him. In colour he is blackish above, spotted with white on his legs and under his wings. He is about the size and shape of a Cuckoo. The native poet calls him the Indian Nightingale, and compares his (the poet's) lady's voice to that of the bird. So they tell me, for I do not read the native poets: it is not that I deem them low, but for many other reasons, the first of which is I cannot. . . . The Brain-fever Bird has come on to my shoulder and is investigating the back of my neck, so I shall stop."

Those of our members who are fond of reading about foreign birds in a wild state, will be interested in the following extract from a paper on West African birds, by Dr. G. Hopkinson, which appeared in the June number of *Bird Notes*:—"Every village swarms with Firefinches, the cocks gorgeous in their scarlet plumage, attended by about a dozen more soberly-clad hens. They are absolutely domesticated, flying in and out of the houses and building in the grass roofs, and finding the greater part of their food in the compounds around the houses. This for the most part consists of the wasted seeds of the millet, and one often sees the heap of husks, which accumulate where the women winnow the ears, red with these little birds. Besides they also hunt for and catch a large number of small insects in the thatch, and perhaps the fact that they require more insect food than their congeners may partly account for their undoubtedly greater delicacy as cage-birds.

"Cordon Bleus and Common Waxbills are the next most noticeable birds. These, although they do not actually live in the villages, are confined, like all the small seed-eaters, to the cultivated ground immediately surrounding the villages; here any day one sees, besides the above, Lavender Finches, Zebra Waxbills, Singing Finches and many other small seed-eaters, while Glossy Starlings (both Long-tailed and Purple), Pipits, Reed Cuckoos, and Warblers in hundreds, represent the soft-billed birds."

A specimen of the Racket-tailed Parrot (*Prioniturus platurus*), from the Celebes, imported by our esteemed member, Mr. E. W. Harper, has just been purchased by the Zoological Society of London, and is now on view in the Parrot-house. This is the first example of this species received by the Society, and in all probability the first ever imported alive to Europe. Space will not permit of our describing the bird here, but no one, who is interested in the *Psittacidae* should fail to inspect it. We may mention that the spatules or 'rackets' have been broken off on the journey from India, but otherwise it is in good plumage.

TO MY PARROT.

Child of the South who hast wandered here
 An old man's home with thy love to cheer,
 Lovely thy plumage and gentle thy ways,
 Long mayst thou rest here to gladden my days.
 Where was thy home ere thou camest to me?
 Was it deep in some forest, high up in some tree?
 Was it low—near the ground, by some rivulet's brink
 Where the wild herds troop for their evening drink?
 Where are the friends that were left behind
 When your lot was cast with the human kind?
 Where is thy mother left alone and forlorn
 When her nest was robbed on that sunny morn,
 And her loved ones scattered the wide world through
 To share the fate that was meted to you?
 What matter the others! so thou art with me
 As blithe and as happy as bird can well be.
 'Tis passing strange that such friendship should be
 'Twixt beings so diverse as you and me.
 But who can tell what Love may do
 Or where his arrows may penetrate through?
 Still nought shall be wanting that I can see
 To brighten thy life and care for thee.
 Shall we meet when we reach that happy shore
 Where old friends meet to part no more?
 Ah! who can tell! but this we do know
 That we love one another now here below.

L. HASLOPE.

CORRESPONDENCE.

THE BLUISH FINCH; PUTTING UP BIRDS FOR NESTING.

SIR,—I should much like to identify a pretty little finch that I have. It was caught in Brazil near Santos. It has a thick bill like a Gouldian's, yellowish in colour. It is about the size of a Black-headed Mannikin, but slighter in build, and with a longer tail, and is nimble, and wags its tail like a St. Helena Finch. It is very sober in appearance, being of various shades of grey, the head almost black, wings and back dark grey, sides light grey, breast and belly white. It has a small triangular patch of black under the chin, bordered by a band of pure white which goes to the opening of the beak on both sides. The white is bordered by a stripe of black that is placed just above the breast, and meets the black cheeks and head. It is a charming pet, tame and lively, and always in perfect feather, except when it moults, which it does suddenly, and remains without its tail or with a bare head for several days. It sings like a Canary but in a much softer tone, and will sing even at night. In Brazil it is called "Papacapé," so the lady who caught it in her own garden told me; but as yet I have not found its description anywhere.

I do not quite understand what you mean by "Putting up your birds for nesting." Mine have built nests all winter and slept in them. Do you separate the hens from the cocks in the winter?

G. TOMMASI BALDELLI.

The following reply was sent to the Contessa Tommasi Baldelli:

Your little Papacapé from Santos is the male Bluish Finch *Spermophila ceruleus*; it is found in Southern Brazil, Argentina, etc. The female is different.

During the winter months, I do all I can to prevent my *better* birds from nesting. If necessary, I segregate the sexes. As a general rule, however, it is sufficient to keep a number of birds together in large flight cages, especially if you do not let them have any sleeping boxes of any kind whatever. Towards the end of May, the birds are transferred to the best garden aviary, in which there are a large number of nesting boxes and places of many kinds, with abundance of material; and practically every bird goes to nest forthwith. With me, I find this course produces the most satisfactory results. But the great mass of the birds have to take their chance in the birdroom and general aviary. When the more delicate species have to roost on the open perches, they require more warmth. This point may not be disregarded with impunity.

REGINALD PHILLIPPS.

BREEDING JAVA-SPARROW AND SILVERBILL HYBRIDS.

SIR,—I thought it might interest our members to know I have bred two Hybrids (one since killed by a Saffron Finch) between a cock Grey Java Sparrow and a hen African Silverbill.

They were born in July last year, and, as the following description of the plumage of the survivor will show, resemble both parents.

Crown of head and nape, pale brown; *cheeks*, a light shade of pale brown showing a distinct light coloured patch; *a blackish patch on the chin*; *back and wings*, grey, but not so decided a grey as the male parent; *flight and tail*

feathers, black; *underparts*, pale buff, a darker shade on the flanks, with a salmon tinge; *bill*, very pale pinkish horn colour; *the size* of the bird is about midway between both parents.

Both young birds, up to being a fortnight old, were almost bare, but on leaving the nest at the end of 26 days were then fully fledged. They were fed and reared entirely by the Silverbill. The bird now living has just got through the moult and is a fine smart youngster.

C. II. CLAYTON.

REARING VIRGINIAN NIGHTINGALES: THE ST. HELENA WAXBILL, &c., &c.

SIR,—I wrote and asked last year how to rear young Virginian Nightingales, and I am writing this year to say I have been successful in rearing a fine cock bird. In May they had one young one, which disappeared at a week old, so, when the hen hatched out two the next time, I took the cock right away. The hen brought them up until they were three weeks old, but the weather was very bad and one succumbed. They came out of their nest too soon, at ten days old. She fed them on bread-and-milk, egg-food, cockroaches and mealworms. She is just going to nest again (July 2nd).

I have two Cordon Bleus in the nest, and one Silverbill out, bred from a cock Silverbill and hen fawn Bengali. I have had fertile eggs from a cock Goldfinch and hen Green Singingfinch, also from a cock Saffron Finch and hen Canary, but both pairs forsook their nests. The latter are nesting again, so I am going to put their eggs under a reliable Canary.

I should like to know if St. Helena Waxbills breed freely in aviaries; mine are always making large nests. A Zebra Finch hen brought up six strong young ones in one nest, but unfortunately died, I think of egg-binding, soon afterwards. Could any of the members tell me if maggots are injurious to Cordon Bleus and other birds bringing up their young?

M. C. HAWKE.

The following reply was sent to the Hon. M. C. Hawke:

The St. Helena Waxbill is a very free nester,—and will rear its young in good sized aviaries, but not usually in small places. During the summer, at any rate, it does better in every way out-of-doors.

It is my own opinion that maggots may be very injurious to Cordon Bleus, as they are heating, more so even than mealworms. I think Cordons are better without either. But I may be quite wrong, and invite other members to give their experiences.

REGINALD PHILLIPPS.

THE BLACK-BREASTED OR RAIN QUAIL.

SIR,—Will you be good enough to let me know how to treat a pair of Quails I have recently purchased, and which are now being advertised by the dealers under the names of Black-throated or Indian Pigmy Quail. Having no outside convenience, I am compelled to keep them in an inside aviary, with an area of about 12 feet by 8 feet.

I find them extremely wild and shy; and they remain under cover of a small bundle of hay and branches thrown into a corner of the aviary for their shelter.

Is there a probability of their becoming tame, or at least bold enough to constitute themselves interesting by giving their owner an opportunity of seeing them, without the necessity of entering the aviary to turn them out of their favourite retreat?

I do not know the true name of this bird, but fancy I recognise an old acquaintance in the cock; as I believe him to be the type of bird which I have seen kept by a certain class of the natives of Southern India in small wicker cages for fighting purposes.

At present they have access to the usual seeds—millet, canary, rape; but no hemp; mealworms they appear to ignore—but they may possibly eat them as I have had no opportunity of watching them feed, owing to their shyness.

ARCHIBALD SIMPSON.

The following reply was sent to Mr. Simpson :

If your birds come from India, they cannot be the Black-throated Quail (*Eupsychopteryx nigrogularis*—from Central America, &c.). But doubtless you have the Black-breasted or Rain Quail, *Coturnix coromandelica*, of which there are a good number in the market. It is a common Indian species, often shifting its ground with the rains, to which circumstance I suppose it owes its second name.

I have had a pair since May 23rd last. They have been very shy, but little by little are gaining confidence, and are usually to be seen when one is quiet.

You cannot force an habitually shy and timid bird to be tame. Leave them alone, never handle them, do not disturb them, be gentle and slow in your movements, keep your arms still (some people, especially ladies, wave their arms about like windmills), and gradually they will gain confidence. It is simply a matter of time, patience, and leaving them alone.

The treatment is very simple. They are much like chickens. Feed them on small grains, insectivorous food, fresh ants' cocoons if obtainable, and any small insect life. An occasional mealworm may be given. *Dried* ants' cocoons are best mixed with the insectivorous food, to take off the dryness.

They require water to drink, but never wash. They take dust baths. Give them a lump of clean dry earth, in a sunny place if possible. If earth is not convenient, give sand.

They should have green food of some kind. *Growing* wheat, grass, &c. is best, but let them have something, if it be only a lettuce or cabbage leaf. If you could give them a green turf occasionally, it would be beneficial.

They are naturally very strong on the wing; but in an aviary of the size you mention probably they will not hurt themselves. In time, they may give up flying, if not frightened.

REGINALD PHILLIPPS.

ITALIAN INSECT FOOD FOR BIRDS.

SIR.—I think you will be interested in the enclosed sample of the Italian Insect Food for Birds. They are from a small quantity kindly given to me by Lord W——, who brought them from Turin. In Italy they form the chief diet of all kinds of insectivorous birds, seemingly taking the

same place as auts' eggs do in England. I believe the Italians call them "dried silkworms," but of course they are the pupæ or chrysalides of the silkworm, killed with boiling water, and then the silken cocoon removed. I understand that they are to be obtained everywhere in Italy at about 1d. per lb.—Lucky Italians! I feel sure they would prove an extremely useful addition to the English soft-bill fanciers' larder, if we could get a sufficient supply.

JOHN FROSTICK.

[The food is quite new to me; and I thank Mr. Frostick for bringing it to our notice, and forwarding me a sample. I crumbled it up with my fingers, and offered it to some of my birds, but they did not seem to care for it very particularly. However, this is no argument against the food, as we should treat our birds as a sensible mother does her children—give what is good for them, not necessarily what they like. Moreover, I fear that my birds are a little pampered. Besides, any such food should be mixed with the general supply, and not given separately. The only real objection to the food that I could see was that the core of each pupa is now a solid hard lump, too large for ordinary birds to swallow, and too hard to be readily broken up. If it were not for these lumps, I should certainly recommend this Italian food, and endeavour to obtain a supply for my own use. I did not try, but perhaps soaking the lumps in water might make the food more suitable for our insectivorous pets.—R. P.]

YOUNG BIRDS FEEDING YOUNG OF THE SAME BROOD.

A brood of seven young Zebra-finches recently left the nest in my aviary, some coming out several days before the others. I was much interested on June 15th to see some of the elder young ones, still with black bills, and only very recently able to feed themselves, feeding their younger brothers and sisters as they clamoured for food, exactly as the parents fed them. I watched them doing so several times. It would be interesting to know if others of our members have noticed similar cases. One has heard of young Thrushes feeding their younger brethren, but I have never before heard of young foreign finches doing so.

D. SETH-SMITH.

THE COMMON QUAIL.

SIR,—I have had a Quail sent to me, and should be glad to know what kind it is. I enclose a few feathers. There is a double dark stripe down the back: the feathers under the wing are very light, and the breast is speckled.

GRACE ASHFORD.

The following reply was sent to Miss Ashford:

It is extremely difficult to identify a Quail by a few feathers from the body of the bird. I took your letter with enclosure to the Natural History Museum, to-day, and consulted Mr. Ogilvie Grant, the great authority on Game-birds.

His verdict is, that your bird is, undoubtedly, a hen of the Common Quail; and he proved this to my satisfaction, by comparing the feathers with those on prepared skins of that species.

A. G. BUTLER.

BREEDING HYBRIDS.

SIR,—I should like to know if there is any chance of the eggs from a cock Goldfinch and hen Green Singing-finch being fertile? They have paired, and she has laid two white eggs, in a box. I can put them under a Canary who is a good mother. I also saw a Canary pairing to a Saffron-finch, and I think one of her five eggs is good, so I have put it under the good Canary who has a nest of clear eggs by a Grey Singing-finch—Canary mule. This is his second attempt, and all clear eggs. He is now pairing again with No. 1 hen. Have Saffron-finches ever bred mules by a Canary, or Green Singing-finches and Goldfinches? There are a lot of Canaries which the Goldfinches might have paired with. I have two young Virginian Nightingales that are giving me a lot of trouble; they left the nest at ten days, half feathered, and the weather is so cold. I go and pick them up and try to get them to sit in a travelling box. I took the cock away, as he ate the last. The hen feeds them on beetles for choice.

M. C. HAWKE.

The following reply was sent to the Hon. Mary Hawke :

It is quite possible for eggs produced by a hen Green-singing-finch paired to a Goldfinch to be fertile, and the resulting mules ought to be very pretty birds.

It would certainly be safer to let a Canary hatch the eggs; as, on three occasions, when Green-singing-finches have laid in my aviaries, the eggs have all disappeared on the completion of the clutch, either the cock or hen having evidently eaten them.

Your question respecting Saffron-finches having mules by a Canary interests me greatly; as I made several attempts to breed with cock Saffron-finches and hen Canaries in 1899, without result, but, the year previously, a Saffron-finch hen which had paired with a Canary in one of my aviaries brought up three mules, two of which unfortunately died during their moult; the third,—a hen, I exhibited at the Crystal Palace, where it was ignored by the judge. This bird is still living, but has so darkened with age, that its Canary characteristics have almost disappeared. one strange peculiarity about it is, that male Saffron-finches are afraid of it; whereas a cock Yellow-Hammer chases it continually, under the impression that it is a hen of its own species.

I hope you will be successful with the Cardinals. A. G. BUTLER.

AMAZON PARROT WITH INSECTS.

SIR,—A young Amazon Parrot of mine is much troubled with insects—a kind of louse apparently—notwithstanding that every care is taken in keeping her cage clean. Can you suggest a remedy? Pyrethrum powder naturally suggests itself, but how to apply it is the difficulty. She is very tame under usual circumstances, but would, I am sure, resent the lifting of her feathers sufficiently to get the powder thoroughly amongst them. She was watered with a watering pot yesterday, a little “Condyl’s” fluid being mixed with the water. We are such good friends now that I hesitate to do anything against her will.

Is there any method of ascertaining the sex of the Blue-fronted Amazon ?

LANCELOTH HASLOPE.

The following reply was sent to Mr. Haslope :

Lice, I consider a sign of ill-health. If the Amazon were mine, I should get a big zinc tub, in the bottom of which I should fix a perch. I should then get some one to put on two stout gloves on his left hand, and after the bird was on the perch, make him hold the bird by the beak. Another person should then be told off to fill the tub with water, with Jeyes' fluid in it—Condy's is of no use—at a temperature of 99 deg. Fahr. Then the person holding the Parrot should see that it is thoroughly drenched to the skin, up to the very beak. Take it out, dry it, and put it before the fire to dry, keeping it away from draughts.

There will probably be nits on the feathers round the vent. These must be removed, as the water will not injure them, and if left they will provide a future brood of lice.

I should prefer doing it myself, but one might alienate the bird's affections for ever, so an indifferent person had better be called in.

F. G. DUTTON.

P.S.—Dr. Butler says the lower jaw of the female Parrot is longer than that of the male.

A SICK NONPAREIL.

SIR,—I should be very grateful if you could give me any help about a Nonpareil who has a lump on his head just above his beak, and apparently little ulcers at the joint of the beak, and I fear inside the beak and throat. It began about a month ago, the result, as I believe, of fighting through the bars ; and since then he has not been able to crack seed, so I am giving him a mixture of scalded bread and hard boiled egg, and crushed scalded rape, with six ants' eggs, and two drops of Parrish's food. I also give bread and milk sop, which I take away after three hours, for fear it should get sour. I also give six flies a day, two of them soaked in oil. He seems quite strong, and often flies vigorously round his cage, but has a difficulty in swallowing, his first mouthfuls especially. He has 20 drops of borax in his water, but I do not see him drink. He gasps, but does not seem ill. I am very anxious to save him, if possible, as I am very fond of him, and he is a really magnificent specimen which I bought at the Zoo in November, 1898. He then had a yellow breast, but got red in the spring; and even now he is much finer, better plumaged bird than those at present in the shops.

I am going to the country on Saturday, and hope the air may have a good effect, but am anxious to know whether it is a known disease, and whether there is any chance of the ulcers coming to an end. My birds are always kept scrupulously clean, and the cage is not a brass one. He often chokes, as if perhaps bringing up matter.

K. HAMMOND.

The following reply was sent to the Hon. Katherine Hammond :

I am afraid that nothing can be done for the Nonpareil. It seems to

be a case of scrofulous disease, to which these birds are subject. However, dressing the sore places with *glycerine of boric acid*, to be obtained from any chemist, might do good. It would, at any rate, be worth a trial; but, if that fails, there is nothing else that I know of likely to improve its condition. Give the bird as much insect food (insects) as possible.

W. T. GREENE.

SEEDS IN ITALY.

SIR,—I think I have always been under the false impression that canary-seed was what we call *panico* and which, from the samples, I find you call Indian millet. Is *alpiste* then canary-seed or is it inga? I will send you samples of my seeds, so that you may tell me if you think me right. I can get the spray millet, for I have it sown, and when ripe I have it gathered and kept in the ear. Last year I had much trouble in getting it, and they brought it to me before it was ripe. I also got white millet in the ear.

The Gouldians, Masked Finches, and others seem to prefer the *alpiste* seed to others, but I don't know whether it is good for them. Sometimes I give a sprinkling of turnip seed and chicory seed, when I can get it, also lettuce seed; but in the spring and summer I give bundles of different grasses in the ear, and they love to pick out the seeds. The Cockatiels and Budgerigars love oats in the ear, and dandelions and chicory. I have learnt to know what grasses they like from a little Rose-breasted Cockatoo, who walks out with me and shows me what he wants.

G. TOMMASI BALDELLI.

The following reply was sent to the Contessa Tommasi Baldelli:

Panico is, as you say, Indian millet. *Alpiste* is canary-seed; but a very poor sample. The best Spanish canary has about double the bulk of your seed.

The sample of spray millet which you send is, I presume, that which you speak of as taken before it was ripe? It is not only of a very sickly hue, but many of the seeds seem shrivelled up: the sample of white millet (*Miglio*), in the ear, looks better: I have grown similar panicles of millet-seed in my own garden.

The only Gouldian finch which I still have alive, of eight bought in 1896, eats both canary and white millet indiscriminately; but it will always leave both for spray millet.

Lettuce, dandelion, and the various grass-seeds are excellent as a change; but I am doubtful about chicory and turnip-seed: the latter I consider decidedly bad.

I do not know what *Motea* is: in form it is not unlike *Sesamum*; but the latter is yellowish; never blackish, I think.

A. G. BUTLER.

PARRAKEETS (*Palæornis*) AND NIGHTINGALES.

SIR,—Will you kindly oblige me with the trivial names and *habitat* of the following:—(1) *Palæornis fasciatus*; (2) *P. magnirostris*; (3) *P. schisticeps*; (4) *P. columboides*; (5) *P. longicauda*; (6) *Daulias golzi*.

The latter is, I think, the Eastern Nightingale. Is there any great difference between this bird and our visitor (*Philomela luscinia*)?

H. C. HESELTON.

The following reply was sent to Mr. Heseltou :

- (1) The Banded Parrakeet—India, eastwards to Cochin China, etc. Andaman Islands.
- (2) Large-billed or Andaman Parrakeet—Andaman Islands.
- (3) Slaty-headed Parrakeet—Lower ranges of Himalayas.
- (4) Malabar or Blue-winged Parrakeet—Malabar Coast (India).
- (5) Malaccan or Long-tailed Parrakeet—Malaccan Peninsula, Singapore, Sumatra, Borneo, Labuan, etc.
- (6) *Golzii*—The Persian, not Eastern, Nightingale—Turkestan, Western Persia, Caucasus, etc.

Erithacus (*Dauias* or *Philomela*) *luscinia* is our Western Nightingale.

E. philomela is the Sprosser, Eastern or Greater Nightingale.

E. golzii is the Persian Nightingale.

All three are very much alike. The Sprosser is usually a shade larger than our bird, and more olive, with sometimes some faint cloudy spots on breast. The Persian species is a trifle larger again, and is slightly more olive than our Nightingale, and slightly more russet than the Sprosser.

REGINALD PHILLIPPS.

SICK BUDGERIGAR.

SIR,—I shall be much obliged if advice can be given to me at once as to what to do with a Budgerigar very ill with dysentery.

K. HAMMOND.

The following reply was sent to the Hon. K. Hammond :

No particulars are given as to the probable cause of the ailment. Assuming matters to be as mentioned,—give as much aromatic confection (from any chemist) as would lie on a sixpence, made into a paste with water. If the bird will not take this, then try two drops of aromatic sulphuric acid and one drop of laudanum in two teaspoonsful of water for drinking; no other fluid to be allowed.

W. T. GREENE.

BLUE MOUNTAIN LORIKEETS.

SIR,—In reply to the editorial foot-note, I beg to say that I consider canary seed and a bit of apple quite as *near an approach to natural food as bread and milk*. I maintain further that apple is not a *sine qua non*, as I sold my pair of Blue Mountains to another member, and he has had them out of doors over a year, and they get nothing but canary seed and water. Moreover, Mr. Oates, of Leeds, used to keep his Blue Mountains on canary seed, and they were always grand to look at. And I believe that Mr. Grace does so still at Wakefield.

I do not see why, although Mr. Phillipps asserts it, Blue Mountains

require any more heat for breeding than other Australian Parrakeets—like Many-colours or Turquoisines; both of which I have bred without any heat whatever. If all that Blue Mountains require to breed is *heat*, why did not Mr. Phillipps give it them? Had he tried (even with heat) he would have found, maybe, that they are *very* shy breeders, as I assert.

C. D. FARRAR.

[We do not pretend that a diet of milk-sop is natural to Lorikeets, but we assert that, being naturally soft-feeders, they require a diet of soft-food in captivity, and milk-sop is at present the best we know of for them. Dry seed is entirely foreign to them, and unless given with plenty of fruit is likely to cause indigestion and fits.—ED.]

[Mr. Farrar misrepresents me. I did not say "Parrakeets" but "Lorikeets." All Lorikeets are Parrakeets, but neither of the Parrakeets he mentions is a Lorikeet. And I referred to heat in connection with Lorikeets in general not Blue Mountains in particular.

The reason why I do not do this, that, or a multitude of other things I have a strong desire to do, is that, unlike Mr. Farrar, my space is limited, and the brick boundary wall inelastic. Moreover, nearly all my birds but the tiny Finches have to be shut up from sunset till nearly 9 a.m., because of my neighbours' slumbers. My space is so overcrowded that I have to consider how to keep my birds in health not how to breed them. Nevertheless, a few perverse birds, like Bichenos (which were too much even for Mr. Farrar), will persist in rearing young, in spite of everything that may be done to discourage them.—R. P.]

BREEDING OF THE RINGED FINCH.

TO THE SECRETARY: SIR,—In connection with your article (Vol. VIII. p. 119) on the Ringed Finch, it may interest you to know that I possess two pairs of that small January consignment. One pair has nested, and we believe the young ones to be about ten days old. The nest is in an ordinary rush basket hanging on the side of our aviary, which we have in a conservatory. I suppose this species must have been bred in this country before? We have bred the ordinary Bicheno several times, but never before bred any of these Ringed Finches.

May 19.

LILIAN WILLIAMS.

[We have received an article from Mrs. Howard Williams on the successful breeding of *Stictoptera annulosa*, in her aviary, which we hope may be published next month. We believe this to be the first instance of young of this species being reared in the United Kingdom; but if any of our members or readers should know of a previous case, they are requested to communicate with the Hon. Secretary.

Mrs. Howard Williams has since written to say that she has now a brood by the other pair.—R. P.]

THE MAGAZINE.

On July 4, a Meeting of the Council was held to consider, amongst other matters, in what way the Society's Magazine may be improved; and it was decided that various little improvements shall be introduced into the new volume which will be due to commence from November next. It is intended, also, that the front of the cover of the Monthly Numbers shall be rendered more attractive and suitable by the addition of a line drawing of a Bird, the whole design to be executed by some well-known artist.

MEMBERS' ADVERTISEMENTS.

SPECIAL NOTICE.—The Council have decided that the present rate for Members' Advertisements shall be discontinued after the appearance of the October number of the Magazine. With the November number a new rate of four words a penny (including name and address of advertiser) will come into force.

NON-PAYMENT OF SUBSCRIPTIONS.

At a Special Meeting of the Council, which was held at No. 26, Cromwell Grove, on the 4th of July—referring to the heavy losses which the Society had sustained of recent years owing to its trust in its members having in many cases been misplaced—it was decided that much more stringent measures shall be taken in future, not only with those who systematically obtain the Society's Magazine without paying any subscription, but also with those who deliberately or thoughtlessly postpone payment until towards the close of the year. The names of those who had obtained the Society's Magazines in the past without paying for them were read out at the meeting. The names of those who had, *at a late date*, paid in previous years, but have not, so far, paid their subscription for the current year, were likewise read, as it was pointed out that it is impossible, judging by the past, to know who intend to pay and who do not, as all alike, with the rarest exception, ignore the Secretary's communications, and month after month obtain and retain the unpaid-for Society's Magazines, besides putting the Society to trouble, vexation, postage and packing expenses, and heavy and serious loss by the *breaking up of many whole volumes of the Magazine*.

At the Meeting, Rules 3 and 10 were entirely remodelled; and the new Rules are printed below; and also—as it is the manifest duty of the Society to safeguard the interests of the general body of its members, who subscribe so freely and punctually, often a year in advance—it was resolved that those who make a custom of deferring their payments shall not, after Christmas, have the Society's Magazine sent on to them until their subscriptions shall have reached the hands of the Honorary Secretary.

[NOTE :—In future, Rule 4 shall be No. 3; No. 3 shall be No. 4; No. 10 shall be No. 5; and the present Rules 5—9 shall be numbered 6—10.]

RULE 3—NOW NO. 4—AS REVISED.

Each member shall pay an annual subscription of 10/-, to be due and payable in advance on the 1st of November in each year. New members shall pay, in addition, an entrance fee of 2/6; and, on payment of their entrance fee and subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

RULE 10—NOW NO. 5—AS REVISED.

Members intending to resign their membership at the end of the current year of the Society shall be expected to give notice to the Secretary before the 1st of October. Those who fail to give notice of their intention to resign, and who, by failing to give any intimation of their desire to leave the Society, permit their name to appear in the November Magazine in the "List of Members," or to remain on the Books of the Society, and thus allow the Society's Magazine to be forwarded to their published or other address, and those who, not having paid their subscription, may at any time desire to resign, or shall have had their Magazines stopped on account of non-payment, shall send 1/- to the Secretary for every unpaid-for copy of the Magazine which shall have been forwarded to or obtained by them; and this sum of 1/- per Magazine shall become due to and recoverable by the Society in each and every case.

Resignations sent to any other than the Secretary shall not be recognized.

(By order)

REGINALD PHILLIPPS,

Honorary Secretary.

THE SOCIETY'S MEDAL.

The Rev. C. D. Farrar has succeeded in breeding a specimen of the Many-coloured Parrakeet, *Psephotus multicolor*; and an account of the circumstance is now published, for the information of our Members, as required by the Rules governing such cases, which will be found on pp. 36 and 37 of the current volume.

A Certificate of the breeding of this bird is appended.

The Society proposes to award a Medal to Mr. Farrar for having bred this species, it is believed for the first time in the United Kingdom. If any previous instance should be known to any of our members or readers, it is requested that they will be so good as to communicate at once with the Honorary Secretary.

CERTIFICATE.

We certify that the Rev. C. D. Farrar has bred the Many-coloured Parrakeet; and we have this day seen the young bird.

(Signed) W. E. STEVENS.

(Signed) B. HEMSWORTH, M.A., J.P.

2nd July, 1902.

(Members of the Avicultural Society).

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

CALIFORNIAN QUAIL, chicks. (Mr. T. N. Wilson). Hatched June 12th. died 17th; hatched under Bantam, transferred to a Cosy Coop Brooder. They all died very soon; they go blind first in one eye, then in the other, and a few hours afterwards they die. Fed on Spratt's chicken food, coarse oatmeal, green fly, chopped meat, chopped grass, etc. [Your chicks have died from starvation, being little bags of bones: your food, although plentiful, is too indigestible. I raise great numbers annually without trouble, as follows:—Ground Osborne biscuit crushed, mixed with hard-boiled egg, put through a masher, and ants' eggs, all slightly damped: plentiful supply of well-soured gentles, and finely-chopped grass fresh at least four times daily; gradually introduce fine groats, then the coarse groats and afterwards the ordinary seeds, but never be sparing with chopped grass and clean fresh water. Many thanks for your remarks of appreciation of my services, which I am pleased to give].

SENEGAL DOVE, hen. (Mr. T. H. Newman). [Your Dove was egg bound; your feeding seems quite correct; give plenty of green food and a little lime water added to the drinking water].

ORANGE-CHEEKED WAXBILL. (The Honble. Mary C. Hawke). [Cause of death was inflammation of bowels].

GOULDIAN FINCH. (Mrs. A. K. Connell). It appeared up to time of death in perfect health. [Apoplexy was cause of death].

GOULDIAN FINCH. (Mrs. M. H. Metcalfe). Found panting on the ground; put in a cage and gave sherry and water; revived a little, took some food, and died during night. [Cause of death was acute pneumonia].

GOULDIAN FINCH, hen. (Mrs. Gorter). Received 8 p.m., June 30th; seemed sleepy, transferred to another cage at 4.30. July 1st bird was dead. [Bird died of concussion of the brain, caused possibly during transit].

Cock YELLOW WAGTAIL. (Mr. M. E. Griffiths). Been in outdoor aviary 12 months. [Cause of death was consumption; bird was positively a skeleton].

YELLOW-CROWNED BULBUL. (Mr. H. W. Burgess). Seemed quite well at 2.30; ill at 4.30 and soon died. [Cause of death was apoplexy. You do not give particulars of feeding so cannot advise].

Hen RHEA. (Major Fothergill). Perfect health in morning; found on nest at 3 p.m. as if on point of laying, but was ill and perfectly helpless. [Cause of death was acute enteritis. She would not have laid for some time, as largest egg was less than a fair-sized walnut].

BUDGERIGAR. (Mr. T. Needham Wilson). [Cause of death was apoplexy].

ARTHUR GILL.



BLUE-WINGED SIVA
Siva cyanoptera

Bale & Danielsson, Ltd imp.

THE
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SEPT., 1902.

THE BLUE-WINGED SIVA.

Siva cyanuroptera.

By E. W. HARPER, F.Z.S., M.B.O.U.

For the benefit of those who may never have studied Hindu mythology, it may perhaps not be out of place to mention that Siva is the name of one of the gods of the Hindu Trinity ; that he swallowed a quantity of poison, which produced a blue colouration upon his throat, and that he thereby became immune to poison ever after. Although the bird now under discussion has no blue upon its throat, the colour is evident on its wings and tail. The Indian Roller, which may be said to glow with both Oxford and Cambridge blue, is in great demand amongst many castes of natives in India during certain religious festivals, when it is liberated with due solemnity by the people who purchase it for the purpose.

The plumage of the Blue-winged Siva has already been described by our two esteemed members, Mr. F. Finn and Mr. W. T. Page, in the *Feathered World* and the *Avicultural Magazine* respectively ; and the excellent plate which, I am told, is to appear in our Magazine will give a good idea of the beauty of the bird. Speaking generally, the bird may be said to be fawn-coloured on the upper parts ; light grey below ; the head is blue, streaked with grey, blue also predominating on the wings and tail. Oates, quoting Scully, says : " Bill grey-horny, brown about the nostrils, and the base of the lower mandible yellow : iris brown ; feet fleshy ; claws horny-brown." Oates' measurements are : " Length about 6 ; tail 2.6 ; wing 2.4 " (inches). The sexes are alike in size and plumage. A peculiarity about the tail of the Blue-winged Siva is that the two outer pairs of feathers are graduated, whilst the remaining ones are all equal in length. Jerdon called the bird the Blue-winged Hill Tit ; but it is evidently more nearly related to the Babblers than the Tits. In a state of nature it is arboreal in its habits, going

about in small flocks, and feeding chiefly upon insects and fruits. Its home is in the Himalayas at an altitude of from 3,000 to 6,000 feet: the temperature at the latter height being very much like that of England. It displays the same desire for tickling and being tickled which all Babblers do. Its food, whether a piece of lettuce leaf or a struggling grasshopper, is firmly held under one foot and torn to pieces with its beak. Having isolated one bird in a small cage for the purpose of observing whether "quids" of indigestible food were cast out through the beak—as is the case with Shrikes, Flycatchers, etc.—I was unable to discover any evidence to that effect; even though the diet consisted largely of material so favourable for quid-production as dried flies.

A year or two ago, I possessed two Blue-winged Sivas of doubtful sex which were in the same cage as a single male Silver-eared Mesia—a bird resembling the Siva very much in general habits. One of the Sivas struck up a friendship with the Mesia, and was continually in its company, tickling being, of course, mutually indulged in. Strange to say, as the affection between the Mesia and Siva increased, the latter began to quarrel with the other Siva, and before very long it was never allowed to come near the Mesia, such was the jealousy which sprang up in the tiny breast of the Siva!

Sivas generally become much attached to others of their own species. On one occasion, two escaped from an aviary in which about half-a-dozen more were confined; but those which had regained their liberty refused to take advantage of it. They continued to haunt the trees in the vicinity of their confined companions; and one of them I was able to recapture, by means of a dexterous drenching with a tumbler or two of water. At the present time I have Sivas, Mesias, Yellow-eyed Babblers, Sibias, and Common Babblers all in one apartment. These birds are almost exactly alike in general habits, and are on the best of terms with each other. A glance at them after roosting time is sufficient to verify this, owing to the snug way in which they are packed side by side upon the perches. So closely do they sit, that their tails almost invariably cross those of their neighbours.

There exist few more active birds than the Siva. Given space, he will dart like an arrow from perch to perch, scarcely touching them with his feet, reminding one of a deer which appears to scorn the ground in its succession of bounds. In confinement, the Siva thrives upon any good ordinary diet for

insectivorous birds ; lettuce leaves and fruit—such as oranges and bananas—should also be given. A bath is daily appreciated. Besides its call notes, the Siva has a soft, sweet song, which is delivered in *sotto voce* accents with the beak almost closed. Of its breeding habits, Oates says : “ It constructs a cup-shaped nest of moss lined with leaves, in a fork of a small tree.”

THE EMERALD BIRD OF PARADISE.

(*Paradisca apoda*),

By DAVID EZRA, Calcutta.

This bird is a native of the Aru Islands. It is about the size of an ordinary Jay, except that its head is a little smaller. The major portion is of a rich dark brown, the top of the head extending to the back of the neck is of a pale yellow, and the portion from the beak to the breast is a dark shining green. The principal beauty of the bird lies in the long tufts of fine delicate light yellow feathers which grow under the wings, and vary in length from six to ten inches, and resemble an “Osprey.” I have two such birds, each in a very large cage in remote corners of my sitting room, to avoid a draught, which is detrimental to their health. This is the second year I have had them. I place them in the sun in the early morning for about a couple of hours. They are fed twice a day ; first, in the morning on boiled milk and bread ; about two hours afterwards I give each of them from my own hands half a dozen live grasshoppers, which they take quite eagerly one after the other, showing great impatience if there is any delay by shrill repeated calls. At midday, their feeding cups are cleaned, and papaya fruit, cut into bits less than half an inch, is given to them. At sunset the cages are well cleaned, and all the cups are removed for the night, lest they should eat at night when there is a light in the room and so get indigestion.

Some of their movements are very graceful ; for instance, when they are in full plumage they throw all their beautiful “Osprey”-like feathers forward, covering their head, at the same time skipping along the perch from end to end, making a low cawing sound all the while. This is what they do when in perfect health. Their moulting lasts for three months, beginning in April, sometimes earlier, during which time they are languid and dull. At the end of six months they are in perfect plumage. They are not song birds, but have a powerful caw with about six

tones, each of which is louder than the previous one. They are rather noisy, and, for those not accustomed to them, they are very aggravating. When I find either of my birds off its feed, and quieter than usual, I give it, instead of the daily grasshoppers, two live cockroaches, which seem to act as a tonic. Once a week I give them a douche with a garden syringe ; this they appear to enjoy, as they move their wings so as to receive the water. Both my birds are cocks, and I have never seen a hen ; since they are not as beautiful as the cocks they would not find a ready sale. The " Osprey " -like feathers are valuable ; and, as my cages are kept scrupulously clean, they are collected in perfect condition, and given to my lady friends. I have been able to tell you so much of these birds as they are in my room, where I have many opportunities of watching them. I hope this account that I have given will interest some of your readers ; I have never attempted to write before for any magazine an account of my different pets.

[We thank Mr. Ezra very much indeed for his useful contribution to our pages.—R. P.]

THE BLUE WREN.

Malurus cyaneus.

By REGINALD PHILLIPPS.

This morning, July 26, I was paying a stealthy visit to the food-corner of my reserved aviary, and was trying to localize certain baby voices which recently have been rather pronounced, and which, as I supposed, came only from Bichenos's and Ringed Finches, when my eye lighted on a long thin cane, fixed horizontally high up in the aviary, on which was glued, in the sun and quite in the open, a tiny mite of a very light brown colour. It was being assiduously attended to by a pair of Blue Wrens, one on either and always on the same side, who every few seconds disappeared and returned with some invisible speck, which it popped into the open mouth of the youngster, this mouth turning to one side or the other as either parent approached. The female was the principal feeder, the male being more disposed to act as guard, for not for a moment was the baby left unprotected. The parents, by the way, have always been much persecuted by the Bichenos.

The young bird was a *very fair* reproduction of the mother, with a shorter but by no means short tail. It was fully feathered, and seemed in perfect health and condition.

On June 21, I had noticed one of the females feebly

building in the centre of the aviary amongst some Virginia creeper stalks, about five feet from the ground, in just such a place as an English Wren might select. On the following day she was building steadily, and was then using only hay. Just about the time, I ceased to feed the birds from that door, and have not since seen the nest. The male was then coming into but was not in full colour.

Probably many of our readers are unacquainted with this species. Take a new physic-bottle cork; into one end stick one canary seed to represent the bill; on to the other end, at a right angle, fix two inches from the top of a quill pen, pointing straight upwards to the sky; a tiny sprig of hay will do duty for the feet. This is the female. Dip the canary seed into the ink pot, adorn the head, neck, and front all round with the blackest black and the bluest blue, mop up any drops that may have fallen during the performance with a rag and wipe down the tail therewith, and there you have the male when in colour. When out of colour he is more or less like the female, but with a blackish bill and darker tail. At least this is how my male was when he arrived on May 26 with two females. Speaking with all seriousness, this species, which has a long tail, is otherwise so small that one of the females has, from the first day they were turned into the garden, spent more time outside the aviary than in it, passing freely to and fro through the three-fourths inch mesh of the roof. She can also pass between the one-half inch straight wire bars of a cage in the house.

This species is reputed to be polygamous. It would be childish in the extreme if I were to make an assertion to the contrary, considering that my experience is strictly limited to my own birds. So far as my own three adults are concerned, nevertheless, the evidence points directly to an opposite conclusion. The two birds which constitute the pair have always been dead against the odd female, and to their persecutions and her loneliness I have attributed her uneasiness. She behaves like a female who is in search of a mate, or at any rate of a quiet home. Her plumage at this moment is so faultless that she could not have been taking part in the work of incubation. I feel inclined to suggest (of course it is only a suggestion) that the males, owing to their brilliant plumage, are killed off, leaving a large surplus of the soberly clad females, who follow each male about in little flocks (four females to a male is supposed, I believe, to be the outside limit) for the sake of companionship, and are constrained to do so by a natural deep-rooted instinctive

craving for maternity in their own poor little breasts. To me the odd females seem to represent the Spinster Aunts of the Blue Wren community.

I send this hasty sketch at once, while my spirit is stirred up within me, for my avicultural duties are so heavy that, if I were to put off writing until "to-morrow," probably nothing would ever be written about my Blue Wrens. But hasty as the sketch is, it will be of interest to our Australian cousins, to whom the Blue Wren is almost as typical an emblem of their country as the Emu.

It has since occurred to me that, on the morning of July 24, I saw a young bird above me I was unable to identify. It was flying about a little, and had a shorter tail, but probably it was this young Blue Wren. On the previous day, the Spinster Aunt had been altogether exceptionally uneasy, flying about the neighbourhood, and returning to the aviary only hurriedly and as hurriedly departing. It did not return to the aviary to roost until it was nearly dark. In the afternoon, one of my neighbours (who keeps the most dangerous cat about, or rather does *not* keep it) came round to tell me that the bird was constantly coming into one of her rooms through the open window, but always flew out before she could shut it in. I let down a cage-trap from one of my upper windows on to the top of the aviary, and caught the runaway before breakfast the following morning, and have since kept it in the house.

Why was the odd female afraid to remain in the aviary? My theory is that the two parents, excited by the presence of their little brancher, had treated the Spinster Aunt so badly that she feared for her life.

If this species is really polygamous, would my birds have behaved in this manner? I know we may not judge by individual experiences; but I do not find that polygamy has been fully proved. In any case, the behaviour of my birds is worthy of being placed on record.

[August 5.—I cannot return the printer's proof-sheets without adding one word.

I have been out to see the young Blue Wren, which is basking in the sun on a high perch side by side with its mother. The two birds are practically alike, excepting for the baby expression and shorter tail of the younger. The parents still feed the latter, but as a rule the female does most of the feeding while the male keeps guard. The young bird hunts freely amongst the foliage for insects; but I have not seen it come down to the food-saucers, nor to the ground. Wild, in a hot country teeming with

insect life, it could now fend for itself; but there is great difficulty in inducing the young of purely insectivorous species to take to artificial food.

The young Wren comes out when the sun shines, but has keenly felt the cold weather we have been having, and has spent much of its time hidden away in the most sheltered shrubs. Doubtless at night the three sleep together in the nest.

At p. 12, Vol. II. of the *Emu*, I find the following:—"Specimens of the male Blue Wren were seen in August, and again in February, undergoing the moult from the brown into the blue livery for summer and *vice versa*." In the wild state, therefore, the male is found coming into colour in August for the Australian summer, and going out of colour in February for the Australian winter. My bird is evidently somewhat mixed in his mind as to the seasons, and cannot determine whether he ought to stick to the blue and nest again or doff his brilliant jacket and retire into private life.

In *Nests and Eggs of Australian Birds*, Mr. Campbell tells us that the eggs are from three to four, occasionally five, in number, and are of a delicate pinkish-white, finely freckled (sometimes slightly blotched) with reddish-brown or pinkish-red, the markings usually being thickest at the larger end, where they generally form a zone; and that the breeding season is included in the months from August or September to January, during which time it rears two or three broods. He adds that the male always retains his deep-bluish tail, while he may also be distinguished by his darker or black bill.

I do not anywhere find any remarks on the plumage of immature birds. The Spinster Aunt is happy with the Bee-eaters, cuddling at night under the male, but always facing in the opposite direction.—R. P.]

ON THE BREEDING OF BARNARD'S PARRAKEET.

Barnardius barnardi.

By Mrs. JOHNSTONE.

It is with much pleasure that I am able to record the nesting of this very beautiful Parrakeet in my aviaries this summer. It was really surprising that they realized the spring had come at all, for it was the coldest and rainiest known on the E. Coast of England for a great number of years. My Barnard's Parrakeets are a lovely pair, the cock and hen so alike and both so brightly coloured that for some time I feared I had two cocks. The hen I had recently purchased from a well-known member of the Avicultural Society, and had assured her she had sent me a cock bird. This wrong opinion was soon dispelled by the pair taking possession of an old hollow tree, admirably adapted and quite rain-proof; all the holes, with the exception of two small natural holes, were covered over, the said holes being one about 4ft. above the solid part of the tree and the other quite at the top, the whole trunk standing about 8ft. high. It was an old elm, the

wood inside being quite soft, large pieces falling in when touched ; the most easily removed I thought it safer to take away, as I feared the eggs or young might be smothered with the soft tinder.

I may here mention that the tree I have attempted to describe is evidently of a very popular description amongst Parrakeets for nesting purposes. The little hen Many-colour was most envious, but she consoled herself later with an old barrel with some decayed wood at the bottom from the same tree.

The aviary was shared with the Barnards by a pair of Mealy Rosellas and a pair of Many-coloured Parrakeets. The Barnards commenced house hunting very early in April during a week of fine weather, and on April 8th the hen commenced to sit, so they were not long in making up their minds. They were fairly peaceable to the other birds, but constantly chased the cock Mealy Rosella round and round the aviary. This was not surprising, for he was a most interfering bird, and would have undoubtedly spent a large part of his time in investigating the Barnards' new house, and was constantly driven away from the entrance hole by the long-suffering cock Barnard.

The Many-colours they left alone, and the Mealy Rosella (whose wife by the bye had died) persecuted the poor little pair, not by actual pecks or attacks, but by constant worrying, until at last I moved him into another aviary. The hen sat very closely, as nearly as I could judge, three weeks, only coming off in the evenings and early mornings for a little exercise ; the cock usually sat just outside the hole and kept off the Mealy Rosella.

The cock had greatly improved in colouring, or else the hen had become duller during the time she was sitting in the dark tree ; there was no doubt now about the sexes, the cock being quite brilliant in comparison to his wife.

They did not seem to mind the cold and wet at all, and were simply fed on the usual seeds, as much as they liked to take. There was plenty of flowering grass in the aviary, growing ; and they seemed to appreciate, with the Many-colours, a plant of flowering mustard, the flowers of which they stripped in pieces and lay about everywhere.

The morning on which, I believe, the young hatched (May 7th) there was a sharp frost, and ice on the birds' drinking water, storms of hail and sleet, and a N.W. wind.

On June 19th, a fine bright morning, after some wet cold weather, the first young Barnard appeared ; he was seen clinging to the top of the wire netting in the aviary, perfectly motionless.

As far as I could see from a distance he was a dull edition of the old birds, the ring clearly marked, and the red patch on the forehead, the whole colouring olive green in different shades, as compared to the beautiful emerald shades in the parent birds, but the tips of the two long feathers in the tail were quite white. The next day another appeared, exactly like the first, perhaps a shade brighter in colouring, and he took up his position next the first, at the top of the aviary, clinging with his beak and quite motionless.

They soon improved in their flying and perching, and were adopted (when the parents were not looking) by the Mealy Rosella who fed them industriously. If he was seen he was immediately chased away by the old birds, but at any rate this proved he had no evil intention. They are now (July 8th) nearly as big as the old birds, but as dull in colouring as ever, and are very sober editions of their lovely parents. They feed themselves, and the old birds are investigating their old tree-hole again, I hope with further nesting intentions.

RAMBLES AMONG THE WILD BIRDS (No. 1.)

By the REV. F. L. BLATHWAYT.

THE COMMON SHELD-DUCK (*Tadorna cornuta*).

“There is a pleasure in the pathless woods;
There is a rapture on the lonely shore;
There is society, where none intrudes,
By the deep sea, and music in its roar.”

Among all the species of the duck tribe which visit or reside in the British Islands, the Sheld-duck is perhaps the handsomest and the most conspicuous. The sexes are much alike in plumage, but the male bird is larger and his colouring rather brighter than that of his mate. The striking contrasts of dark green, white and rich chestnut in his plumage are well known to many of us, and it is probable that he gets the prefix ‘Sheld’ to his name from an East Anglian word, signifying pied or parti-coloured.

Those of us who have lived by the sea, where the coast is low and sandy with a fringe of sand hills, and where at low tide the sea retires almost out of sight, leaving bare stretches of mud-flats, are probably familiar with this interesting bird. Such are the localities he loves to haunt; and in just such a locality in the West Country have I often met with him during my rambles among the birds, and so will try to describe some of his habits

in a state of freedom, in the hope of interesting some readers who have not many opportunities of visiting the haunts of this handsome species.

The Sheld-duck is a bird of the sea-shore. He is, it is true, occasionally found a considerable distance inland, but only on rare occasions, and there is hardly a species of duck found in our Islands which is in a truer sense a sea-duck than the species we are considering. The young duckling is usually hatched only a short distance from high water mark. His infancy is passed, not on some secluded pond or reedy lake, but among the tumbling billows and the nooks and crannies of the sea-shore, and when he has arrived at maturity he seldom strays from the ever-changing line where the sea meets the land.

On the muddy flats and lofty sand hills which are so conspicuous in parts of the Somerset coast-line, the Sheld-ducks find all the requirements suited to their habits. They are never entirely absent from these haunts, but are perhaps most conspicuous during the nesting season. At the end of March, or early in April, they begin to collect at their breeding places, which are quite near to the large expanses of soft mud and sand which have been their feeding grounds during the winter months.

It is probable that the habits of these ducks differ somewhat, according to the locality in which they are found, and my own observations refer only to a certain part of the Somerset coast. I have been struck by the different breeding habits of the birds, even in this small area. During the winter the ducks are scattered over the feeding grounds in the Bristol Channel in parties and flocks up to 300 or more in number. Early in spring the birds congregate in the spots where they intend to breed, and I know of two nesting stations, each holding more than a hundred pairs, but in which, although they are practically contiguous, the habits of the birds are, owing to physical conditions, somewhat different.

One colony breeds on a bold headland which runs out a mile or more into the sea; the other colony breeds among the high sand dunes which stretch from the base of the Down southward along the coast. So close are these two colonies that perhaps they should be regarded as only forming one, and yet it is curious to notice that the different physical conditions have slightly modified the habits of the birds. The Down, which is steep and rocky near the water's edge, is partly covered with thick vegetation and tangled masses of privet, bramble and other

bushes, and the ducks which nest here often lay their eggs beneath the thickest parts of a bush and in crevices of a rock, instead of choosing the more usual site which is below the surface of the ground. In the adjacent colony, however, the birds breed among the sand dunes, where bushes are scarce and rabbit-holes very numerous. In this place a hole is almost invariably selected for nesting purposes, and the eggs are often laid many feet from the entrances to the burrows. This habit of nesting in rabbit-holes has acquired for the bird the local name of 'Burrow Duck.'

There can hardly be a spot in England where the habits of these birds, in quite a wild state, can be better observed than on this part of the Somerset coast. During a visit to the Down in April of the present year, I came suddenly upon at least 300 of these birds, resting in scattered parties on the sloping surface and waiting for the tide to ebb and lay bare their feeding grounds. The birds rose as soon as they were aware of my presence, and it was a beautiful sight to see a hundred or more of these birds on the wing at once, in the brilliant sunshine, and crossing one another in all directions. The flight is more Gull-like than that of most of the ducks, for the wings are more slowly beaten, and this fact enables an observer to distinguish the species at a great distance.

The Down is a favourite resting place for the birds at high tide, but it requires very careful stalking to get a good sight of them, as they are extremely wary and fly out to sea if disturbed. The colony among the sand-hills loves to rest on a low island near the river bar, or on a sand bank opposite to it, which is only covered by the spring tides.

This bird, though usually one of the shyest and wariest of wild fowl, will sometimes in the breeding season admit of a very close approach. I have several times walked up to within a few yards of a pair on the bare sands while they were busily engaged in feeding, and have also, among the sand hills, crept so close to parties of thirty or more, that with a glass I could follow all their movements. The drakes are at this season very pugnacious, and are continually chasing each other about, though I have never seen a very serious combat. The pair seems to keep together, though many pairs may be seen in close proximity, which give the appearance of a flock. When disturbed, however, they scatter in all directions, the pairs still keeping close together.

The drake is larger than his mate, and though very similar in plumage, his note is altogether different. This is very difficult to describe, but sounds like a low squeaky chattering whistle, if such a noise can be imagined, and is apparently uttered with some exertion, as it is usually accompanied by a curious bowing movement of the head, as though the bird were pumping up the sound with much labour. The note of the female is either a harsh long-drawn bark or a chattering quack, which, when heard at a distance, has some resemblance to the harsh cry of the Peregrine Falcon.

I well remember the first Sheld-duck's nest I found. It was early in the month of June, and I was at the time very eager to get some eggs of this species to add to my collection. I had often before been unsuccessful, but on this day fortune favoured me, for while I was burrowing my way through nettles and prickly shrubs, I came upon a 'run' in a very thick privet bush, which I knew had been used by a duck owing to the presence of some of the lavender-coloured down from the bird's body. Following up this 'run' I soon came upon a female Sheld-duck sitting in a little hollow from which she could not escape except by passing me. This she would not do, so I caught her, and after admiring her plumage, let her go, whereupon she flew out to sea with much quacking. The nest consisted of a mass of down plucked from the bird's body, mixed up with bits of stick and dry grass, and contained sixteen eggs of a creamy colour, piled one on the other so as to occupy less space. Two of these I took away, and they were nearly fresh, having been sat on for a day or two only, but the bird had evidently laid her full complement. This is perhaps rather above the average number of eggs for this species to lay.

Since that day I have found many Sheld-ducks' nests in a variety of situations, such as deep down in rabbit-burrows, in crevices of the cliffs, and under thick bushes. One nest that I saw, last year, was placed in a bed of nettles, and the eggs could easily be seen from above without touching the surroundings. Such a site however I regard as quite exceptional, and the commonest situation for the nest is deep down in some rabbit-burrow. The young are hatched about the middle of June, but the date varies with the season, and are immediately taken by their parents to the sea, where very often several broods may be seen swimming together. The young are active little creatures, and scatter in all directions if alarmed. I have never been fortunate enough to see the parents taking their young to the sea,

but I have been told on reliable authority that they sometimes carry them down singly in their bills while on other occasions they lead them in a brood to the water. The situation of the nest would probably determine the mode of transport, the young which were hatched on rocks and slopes above the sea being probably carried down in the parents' bill, while those which first saw daylight at the entrance of a rabbit-hole on the shore, could easily follow their parents over the sand and mud-flats into the water.

When these birds wish to change their feeding grounds and to pass over a few miles of intervening land, they mount high into the air for the sake of security. When, however, they only wish to pass farther along the coast they do not trouble to rise many feet above the water. I have seen parties flying over a sea-side town in a long diagonal line. They seem to be regular in their habits, and pass daily over the same spot, but their hours are naturally less regulated by the sun than by the state of the tide.

I have heard of many other interesting habits of this species, such as a curious trick they are said to have of paddling quickly with their feet on the mud to attract the worms to the surface. My object, however, in this article has been to record as far as possible only my own observations, and so I will refrain from giving second-hand information. The above notes are of necessity very imperfect, but are, I believe, as far as they go, accurate, as they have been gleaned from Nature herself, with the aid of nothing more formidable than a good field glass.

BREEDING OF SHELD-DUCKS IN CONFINEMENT.

By WALTER G. PERCIVAL.

In 1895, my father succeeded, after many failures, in rearing a few Sheld-drakes from eggs hatched under hens. Of these birds only two (a pair) reached maturity. They were allowed perfect liberty, but were pinioned. To induce them to breed, holes were cut in the banks near the water; hollow roots of trees laid about, and shelters of faggots piled up in quiet spots, but all of no avail. The first season they made no nest at all but wandered about, sometimes dropping eggs in the hen-houses, sometimes in the fields and orchards.

The following spring they wandered about in the same

way, invading all the hen-houses, and at last fixed upon a nesting place in a large dark cider-house. Getting through a hole in the door (cut to allow cats to enter), the duck scraped a hollow in some sand at the back of the barrels, which she lined with down from her body, and there deposited her eggs and brought off five young ones; and every year since they have nested in the same place and reared broods of from 5 to 9.

The old birds are very proud of their young, and march them round the poultry-yard, driving away the chicks from the food in order that their own young may enjoy it.

The drake becomes so aggressive that he has to be shut up. He will attack anybody or anything. I once saw him rush at a fox terrier and seize it by the ear, but fortunately the dog did not turn on him. Another time he seized my father by the trousers and held on.

Confining the whole family in an enclosure proves fatal to the young, though in the open they run great risks, as rats and crows are very fond of them.

They feed with the poultry on soft food containing about equal proportions of barley, maize-meal, and sharps, and hard food as maize, wheat, dari, &c.

If confined they should have a little half boiled vermicelli, scraps of meat, and as much duckweed as they can eat.

A peculiar and amusing habit of the young when a few days old is the stamping about on the grass as if to warm their feet; possibly on the sea sand, their usual nursery ground, this would drive the insects to the surface.

Nothing can be more delightful than to see these ducks flying round, and it seems a shame to pinion them; but, if this is not done soon after they can fly, they eventually disappear.

Last year an amusing incident took place while the male bird was penned up. A male Fulvous duck, who had recently lost its mate, took charge of the young Sheld-drakes and relieved the female of a lot of trouble, often taking sole charge of them while she went to feed. At this time the young ducks were bigger than their foster parent.

I do not think Sheld-drakes are often met with breeding in captivity, but several instances are recorded of their producing hybrids with the common duck.

THE INDIAN PITTA.

Pitta brachyura.

By REGINALD PHILLIPPS.

(Concluded from page 185.)

When first I wrote out the earlier part of the account of the Pitta, which appeared in our July number, I gave quite a glowing account of the solitary survivor, of its powers of flight, how it kept to the high perches, and of other matters, in a general vaunting strain, to impress upon my readers what a successful keeper I am of a single Pitta—but once more I had to haul down my flag. Before the MS. had left my hands, it dawned upon me that the Pitta was unwell, was ill, was dying, could not possibly survive the night. I suppose it was the sudden cold that came back upon us in June. Moreover a fresh arrival, a Coach-whip Bird, had driven the Pitta from its usual haunts, and probably it got into a draught; any way, the bird was suffering from a serious internal chill, and was in a critical condition. I shut it up, gave it fluid magnesia, then ipecacuanha wine, then sulphate of quinine, feeding it all the while on the very plainest food possible; and the dying bird, after trying to die for a few days, thought better of it, and slowly, very slowly, recovered. But the boastful lines had to be erased, and the milk-and-watery sentences substituted, which have already appeared. I mention this sickness of the Pitta for more reasons than one. The Pitta never left the shelter of the bird-room, but was so susceptible to atmospheric changes that the cold of an English June nearly proved fatal to it. Again, I have had several cases of chill in which I have found ipecacuanha wine in the drinking water most beneficial. The Pitta, by the way, is a thirsty soul—an invaluable lever to assist one in pitchforking a bird out of the grave. And yet again, some species are chicken-hearted, and when they fall ill they make no fight, but settle down to die. Thus the Pitta:—and a tonic of some kind is indispensable. The symptoms of this particular sickness were those of certain death, and yet it lives. At the present moment (July 15th) it seems in perfect health, its feet exhibit no signs of tenderness, and its powers of flight have been fully recovered, as I find to my hindrance when I try to get near enough to examine its present plumage.

Visitors to my bird-room not infrequently remark, in one form or another, when the Pitta is pointed out to them, that they had expected to see a much brighter plumaged bird. The remark is not an unnatural one, but it shews that those who

make it are unacquainted with the nature of the species. In one respect, in fact, to which I will refer later, the bird is actually brighter than represented in the coloured plate. It is in cases like this—but this is but a mild instance—that those who keep the living bird are able to detect and observe the true habits of a species in a way that is closed to the Cabinet Naturalist and usually inaccessible to the Field Naturalist.

When my Pitta was left alone in the world, it became as wild as the wildest Pitta in India; and for some weeks I had the gratification of studying the bird as it is in the wild state. It had arrived at the conclusion—poor thing, it was not far wrong perhaps—that I was the murderer or the something of its companions; it most certainly connected me in its mind with their disappearance, and looked upon me as a most dangerous character. At first it kept to the highest perches, flying about with great power, and rarely descending to the ground. But the safety of a Pitta lies not in its wings, as the bird knows well, but in its cleverness in assimilating itself to its surroundings. It is not a bird of the ground, as is generally stated, nor yet is it a bird of the air. The flight is fairly powerful, up to a certain point, and is straight like a Partridge's but not nearly so noisy. In comparatively open ground, it could rarely escape from a bird of prey, and in the jungle would soon be destroyed, and become extinct, if it were not that Nature has taught it how to hide its bright colours and become inconspicuous. Not on the ground, remember, but in some bush, some few feet from the ground, when it spies a foe, it does not fly until it knows it has been detected, but braces the feathers tight to the body, stoops and leans straight forward pointing to the enemy, and offers a remarkably small and inconspicuous object to the view. The bracing up of the feathers hides every bright speck, and the stooping and pointing-forward position of the whole body render the red underparts wholly invisible. In the gloom of a forest, the tiny fawn-brown speck, in the midst of a bush some 3—5 feet from the ground, would be a most difficult object to detect. Half the world would pass by within a few feet of the bird without having a suspicion of its presence. When high up, on the other hand, it usually flies when approached, as if conscious of its inability to effectually hide itself. My bird has now become fairly tame again, although still remarkably suspicious, and has given up hiding; but when visitors come, although it does not play 'possum, but wags his little tail about, it still habitually braces itself up, and invariably faces the visitor, so that no bright

colours are visible. I think I have nearly always to point out the Pitta to visitors before they see it. On a few occasions I have seen a Pitta endeavouring to escape observation by presenting only the dull green of the back parts to the gaze of its pursuer, putting its head into a hole or corner for instance, but that is altogether the exception, and I think only resorted to after it has been discovered, and is endeavouring, in mad terror, to hide from some cruel pursuer. On a perch, it *never* turns its back to the enemy.

I must mention that the general idea that the Pitta, when in health and plumage, is a ground bird is an erroneous one. It is a bird of the bush and jungle, not of the ground. If it were a ground bird, it would run like a Quail, or would walk like a Jackdaw. It does neither, however, but proceeds by hopping, getting over the ground remarkably quickly all the same. My bird particularly dislikes the open garden, infinitely preferring the gloom of the birdroom. A Pitta will never roost on the ground, unless absolutely compelled to. In the birdroom they usually went to roost far beyond my reach. I do not find that they like to perch on stones or mounds, but invariably take to the perches. The statements that I have met with that "it rarely alights on a tree" I think must be wholly erroneous, unless high forest trees are meant. When not frightened, it prefers the bush; but my birds, when flushed, invariably took to the highest perches. I observe, too, that most of the accounts of the Indian Pitta are simply cribs from Jerdon, who is ignored, and the statements advanced as if they were the result of modern and independent observation. It is thus that errors are perpetuated.

I have mentioned the wagging up and down of the Pitta's tail. I must also mention that sometimes, when perhaps a little nervous and doubtful of one's intentions, it commences flicking its wings, and continues to do so for some time.

It occasionally takes a bath, but with me, not often. Perhaps I am too cold. It is only I think when two or more are in a cage, and get dirty, that they take to tubbing at all freely.

I made many attempts to sex my Pittas. In July, I "he'd" and "she'd" them as if I knew all about it but, as a matter of fact, I have never been able to sex them with certainty while they were alive. While they were alive, I sexed them more by their ways than by their plumage. I may be wrong, but am inclined to think that the "crow" is a sign of the male. My survivor is, I believe, a female—and it crows; but I think it did

not crow while its fellows were alive, and I fancy its crow is not nearly so loud and shrill as were those of the males. It is well known that a solitary female of some species will sing; the common Virginian Grosbeak is a familiar example. I feel, therefore, that the crowing of my supposed female, being a solitary bird, does not necessarily disprove my suggestion that, under normal conditions, the crow may be a distinctive sign of the male.

On referring to my Bird Journal, under the date of February 12th last, I find the following entry:—"A double whistling scream is their most common note, sometimes a single scream—longer, sharper, and louder. The war-cry is quite different, and means murder." I cannot recall to mind this war-cry, so must be content with the simple extract. It does seem silly, but the Society is to blame, for giving me so much work to do that often I am unable to post up my own Bird Journals.

The only cry I ever hear now is the "crow," or "double whistling scream" of the above extract. But it is now never loud and shrill enough to be called a scream. What is this cry? Is it a song, a call-note, or a crow of defiance? Certainly sometimes the latter. When one bird has been shut up, I have seen another go to the outside of its house and crow at it in a way that there was no mistaking. Yet very often one feels that it must be the call-note. As I write this, I hear my Pitta in the next room. It is not a crow of exultation, but mournful, as of one who calls and there is no one to answer. This call is a kind of double whistle, sometimes pretty frequently repeated, shrill, resonant, unmusical, practically without variation, and in the jungle might be heard at a considerable distance.

According to Jerdon (Vol. I. p. 504),—"Its Singalese name is said to be derived from its call *Avitch-i-a*, pronounced slowly and distinctly." Doubtless this is my double-whistling note, but, if I may judge by my own birds, the description is not good. It is rather *Who-cé*; *who-cé-oo*, pronounced rapidly, so rapidly sometimes that the first note of the second whistle is lost in the second, and the call becomes *Who-cé*; *whé-oo*. There are two quite separate sibilant whistles, the component parts of each being slurred together, the emphasis in each being on the *cé*. Jerdon adds "Blyth was informed that it has a screeching note." Perhaps this is the single note I have referred to. Years ago I had four Piping-Crows (*Gymnorhina*); one old White-Back used to *belch forth* (I can use no milder description) a single scream, full of venom, malice, and hatred against a Bantam in the next

garden, whose crow infuriated the Piper to the last degree. The single scream of the Pitta was like this, but milder; and in each case the scream seemed to be tinged with a ring of impotent rage, generally, with the Pitta, when the rival was in another room. The war-cry of the Pitta was the blood-thirsty war-whoop of Fennimore Cooper's Indian brave, as he hurled himself upon the sighted pale-face in the hopes of raising his scalp. I have seen the weaker Pitta cower with terror at the sound of the dreaded note.

It is usual to refer to birds of the vindictive nature of the Pitta as being pugnacious. I consider the word to be unsuitable. Pittas, like many other species, do very little indeed in the way of actual fighting:—one just runs away, and another just runs after it—at least that is my experience; I do not call that fighting. Like many other birds, when kept huddled together in a confined space, beyond a little tilting, they do not very seriously interfere with one another. Give them liberty, and a run for life commences.

All writers seem to agree that the Pitta, in the wild state, is a solitary bird; and that such is the case is fully supported by the behaviour of my anything but "happy family."

With a few notes on the plumage of the Pitta, I will bring this paper to a close.

There is one serious blot in the Coloured Plate; and it is difficult to say exactly how it came about. On the wing-shoulder (lesser wing-coverts) of my Pitta, as there was on the shoulders of the other three, there is a patch—varying in size and shape according to the movements of the bird—of the most brilliant light azure blue, more brilliant than can be produced by art of man. This spot was represented in the original painting. In the proof (three-colour process), this spot was dull, and I was told it could be improved; but instead of being improved it has practically been wiped off the face of the picture altogether, shewing the inferiority of any mechanical process compared with the work of that inimitable structure the human hand. Please bear in mind, therefore, that, on the spot indicated, although not often to be seen by strangers, there is a beautiful patch of brilliant light blue, which in the sun sparkles like a gem.

Another point in the plumage I must refer to, as only a trace of it can be found in the illustration, owing to the portrait having been taken before the new feathers had fully developed themselves, but which is now, as a rule, fully apparent in the living bird.

In the description of the Bird, the Museum Catalogue (Vol. XIV. p. 423) says,—“narrow superciliaries buffy white, produced on the nape into pale bluish lateral tufts.” Jerdon gives it,—“a white superciliary line extending to the nape, but not quite meeting its fellow.” On my bird, the superciliary streak is mostly buffy white, except at the tufts, which seem to be white ; but I may be mistaken, for, if I now look attentively at the Pitta, it is off in a moment. Jerdon does not refer to the tufts, but describes their position well, for they are hardly lateral. Some times these tufts are rather conspicuous, and at one time I thought to sex the species by their aid ; but I will not now do more than throw out the hint for some one else to work out.

With another extract from my journal I will close :—
“When courting, *perhaps* they turn their backs to their mate, standing up and folding and unfolding wings, tail wagging perpendicularly.”

NOTES ON THE RACKET-TAILED PARROT.

Prioniturus platurus.

By E. W. HARPER, F.Z.S., M.B.O.U.

I don't like rushing into print, especially when I feel that my knowledge of the subject upon which I am writing is very small. Parrots are not birds which I am particularly partial to. From an early age, I have been under the impression that Parrots in general are birds which delight to render themselves objectionable by making hideous noises ; this impression was doubtless given by frequent visits to the Parrot-house at the London Zoo, when my age was what is generally known as tender. Another reason why Parrots are not favourites of mine is that everyone who sees a Parrot—specially if it be a lady—is sure to ask, “Can it talk ?” In the case of the bird I am now writing about, I had to reply in the negative ; at the same time looking and feeling very sheepish. Nearly everyone to whom I had to confess that the bird was not of a conversing nature, appeared to give me a look which embraced contempt as well as pity. Contempt for a man who was unable to teach a Parrot to talk ; pity for the individual who could be such a confirmed idiot as to keep a bird which could *not* talk ! Things got to such a pitch that I dreaded telling anyone that I had a Parrot at all ; lest I might be requested to bring it forth for inspection. If it got to the inspection stage, and such exclamations as “Pretty dear,” “Oh ! what a beauty,” were indulged in (to the Parrot, of

course) by the visitor, I knew it was only a question of seconds until the fatal question, "Can it talk?" would be asked. It was of no earthly use for me to hint that I had not time to teach the bird; that it was a young one; or, that I had not possessed it very long. Such paltry excuses only tended to heighten my crime of keeping a non-talking Parrot. Now, all that is over: I can show my other birds to friends, without feeling that they will have a chance of asking that question which once seemed to be continually clinging to me like a nightmare. Gentle reader, to ask the owner of a non-talking Parrot whether it talks, is as bad as asking a man if he has paid for his last new hat! Don't do it. But, "What has become of the Parrot? Is it dead?" I hear someone ask. No; the London Zoo has purchased the bird, and the Secretary writes to say that it is the first one of its kind they ever had. Its home is in the Celebes.

Our esteemed member, the Hon. and Rev. Canon Dutton, is to be thanked (or blamed?) for these notes. Tho other day, after I had written to say that I had not time to write an article for the *Avicultural Magazine* at present, he replied, "I hope you will not be obdurate, but will write a short account of the bird." So I gave in. As I have not the bird before me, I must trust to my memory in describing it. The general colour is green, with a bluish tinge about the neck. The inner feathers of the wings are yellow, this colour being often visible when the wings are naturally folded upon the back. The most important part of the bird's plumage, however, is its tail, the peculiarity of which gives the bird its name. The two middle tail feathers are elongated, something like those of the Racket-tailed Drongo. That is to say, the webs of the two feathers, at a distance of three or four inches from their base are wanting, only the stalk of the feather being present for two or three inches. At the extreme end of the "stalk" is a flattened circular knob or "racket," about the size of a split pea. When I first purchased the bird from the establishment of a well-known Calcutta dealer, no evidence of the "Rackets" was visible; but our learned member, Mr. F. Finn, of the Indian Museum, who was with me at the time, at once identified it. Another striking point about the Racket-tailed Parrot is the colour of its beak, which is slaty-blue. The legs and feet are of a leaden colour. The bird, before I purchased it, had been fed upon "gram" (a kind of pea) previously soaked in water. So on tiring of the bird, and being overcrowded, I sent it on deposit to the Calcutta Zoological Gardens, where it was also fed upon the same kind of soaked

“gram.” Upon this diet it thrived, and kept in good condition. It shared the same cage as another Racket-tailed Parrot, which, by its brighter plumage, I took to be a male. After removing the bird from the Calcutta Zoo, for the purpose of bringing it to England, I fed it as I would have done an African Grey Parrot, viz., on canary seed, hemp, dani, rice in the husk, and millet; it was particularly fond of canary seed. A bit of dry biscuit, toast, or crust of bread was always relished; as were also fruit, such as banana or orange, and a little lettuce now and then. During the first week or two of the voyage home, the bird was continually gnawing its perch; in fact, I had to get it renewed by the ship’s carpenter. Latterly, it quite gave up the habit; and I am inclined to think that the diet of hard seed and dry biscuit effected the cure. Water was always left in the cage, but the bird did not drink much; it did little more than taste the water three or four times a day. I use the word “taste” in its correct sense—some people who live in Scotland are apt to misapply the word and exaggerate its meaning. (I am an Englishman!) When pleased or excited the bird uttered a single note like the word “click.” At other times, especially when its cage was placed in the sun, or after it had partaken of a juicy slice of a ripe orange, it would cry out rather loudly in a chattering voice. In the dark, if the cage were moved suddenly, the bird would make a harsh, guttural, hissing noise. In conclusion, I must give the bird a good character, by stating that it never made itself a nuisance by continually screaming, as so many badly behaved Parrots are wont to do.

BREEDING OF THE RINGED-FINCH.

Sticteptera annulosa.

By Mrs. HOWARD WILLIAMS.

We bought two pairs of these finches in January last, and after a few weeks passed in a good sized flight cage, they were turned into an aviary placed in our conservatory, containing Gouldians, Long-tailed Grassfinches, Double-bands, a pair of Zebra Waxbills, and a few Canaries and Avadavats.

They settled down happily, and took their share of all the food going, consisting of Indian spray and white millet, ants’ eggs, Abrahams’ preserved egg, canary seed, and, most important, chickweed, which we grow in frame all winter, and which we find much less rank and coarse than the ordinary garden variety, and

flowering grass as soon as we could find any. We also give soaked canary and millet.

We did not pay any very special attention to them for some time, being much interested in some Long-tails and Gouldians which were all nesting, but at last I noticed that a hen Ringed Finch was sitting in a very old rush basket with a hole in the back, which was hanging on the wire front of the aviary, about the level of my eye. I could plainly see the hen sitting through this hole, but foreign birds being shy we scarcely looked at her at all lest she should desert.

However, one day a Red-headed Gouldian, in a fit of jealousy, went to a coconut husk belonging to a Black-head and threw out six infant Gouldians, scattering them over the floor. Someone climbed into the aviary (no easy task as it stands on four legs), collected the poor mites, and replaced them, and reported that the Rings were not only hatched but were feathering well. The Gouldians were thrown out again and died, but we caught the murderer before he did any more harm, and our precious Ring Finches escaped his unwelcome attention. Finally, on May 29, they left the nest. There were three of them, one rather larger than the others. In appearance they were very much like their parents but much lighter, especially the wings and tail, and the dark shading at the top of the beak was hardly noticeable. In one important point, however, they were entirely different. Seen full face they were absolutely ringless, and their breasts were pure white. In profile, they showed the beginning of the upper ring which encircled the face. In a few days, there was a faint indication of the lower ring in the two smaller ones, but the eldest kept his pure white breast some time longer. They were very small, but scrambled about vigorously, and managed to get back to their nest whenever they were tired, and always at night.

They are now (July 12) about nine weeks old. They show both rings fairly distinctly, though they are not clearly defined yet. They seem to be moulting a little, and we imagine the rings will perfect themselves, and the plumage darken when the moult is finished. They are very healthy, feed themselves entirely, and are very fond of green fly which they pick off the rose and honeysuckle sprays placed in the aviary.

It is interesting to notice the difference between them and the ordinary Bichenov's Finch, which has bred with us several times. We think they leave the nest about the same time, at three weeks old, but whereas the Ringed Finch emerges ringless

his relative has both rings quite as clearly marked on leaving the nest as the Ringed Finches have now at nine weeks old.

They are very tame confiding little creatures, and very gregarious in their habits, feeding, bathing, and playing about together with no quarrels or jealousies over food, mates, or nests.

Our aviary was made to stand in a sheltered verandah, but is a great success in a conservatory. It is made of wood, wired only in front, with a high wooden gable roof, and this probably protects the birds from the extremes of heat from which they are said to suffer in a conservatory. If it is very cold in winter and early spring, and the usual heat seems insufficient at night, we set a powerful lamp on the floor close to the aviary, which gives out a good deal of heat as well as light, and lasts all night. It is also used for an hour before bed-time as long as the very dark evenings last, to give the birds a chance of a late supper, of which they take full advantage.

The Ringed-Finches used grass for their nest, and also some New Zealand fibre, which we threw into the aviary on the chance of some bird taking it.

The parents seem to be nesting again ; and the other pair bought at the same time have eggs, if not young ones, so we are hoping for an increase in the number of our little family before long.

BIRD NOTES.

The July number of the *Zoologist* contains a most useful paper on aviculture by our esteemed member, Dr. A. G. Butler. For twenty years he has kept birds in captivity, not only as a fascinating hobby, but as a means of acquiring a knowledge of the habits and life of birds, of which the "cabinet ornithologist" often knows next to nothing. During the whole of the time that Dr. Butler has been an aviculturist he has striven, as he tells us, "to make this labour of love useful to ornithologists generally."

A pair of White Storks, which have lived in Kew Gardens for three or four years, have this year reared one young bird. This is a matter of considerable interest, as it is probably the first instance of this species having bred in this country. An interesting letter on the subject, from the pen of Dr. A. Günther, appeared in the *Field* of August 2nd, to which we would direct the attention of our members.

Some of our members will be interested in the following letter which appears in the current number of the *Emu*, from the pen of Mr. E. H. Webb, of Macknade, North Queensland, dated May 12, 1902: "A few days ago I found a nest of the Crimson Finch (*Neochmia phaeton*) in a curious

position. It was placed in the thatch of a grass-built hut, just below the edge of the roof and close to the door, the hut being occupied by some Chinamen. It was firmly wedged in, the entrance being scarcely visible, and contained three eggs in a very advanced stage of incubation. Though by far the greater number of these finches build in this district in the pandanus palm, I have often found their nests in growing sugar-cane, wedged in amongst the dead 'trash' which adheres to the stalk. Both the Crimson Finch and the Chestnut-breast (*Munia castaneithorax*) are at present breeding plentifully, and appear to do so all the year round."

Dr. W. T. Greene has kindly sent us the following account of the adventures of a young Cuckoo, which he has received from a correspondent: "Two little Redstarts had built their nest on one of the stone pillars that support the balcony in front of the dairy. We were amazed at their folly, wondering how they expected to get their babies fledged without Brian (one of the cats) eating them. One day M—— was greatly distressed at seeing Tabs (another cat) walking up the stairs with a dead naked bird in her mouth. M—— took it from her, but evidently Tabs had not killed it, for it was quite cold, and M—— had seen her go down the stairs and come back immediately with the bird. In a minute or two Tabs went back and looked about on the ground round the pillar, so that seemed to show she had found the young bird on the ground. We thought the parents had somehow made it fall out of the nest in fright at the cats, or something of that sort, and we thought no more about it until Sunday, July 6th, when M—— called me to come and see something extraordinary. I went, and there was a creature that looked more like an Egyptian god than anything else, rising slowly up and down in the nest—like a Jack-in-the-box, only slowly. I got a chair and looked nearer at it. It was unmistakably a young Cuckoo. Well, that bird has kept us waiting on him until yesterday. On Wednesday, when the great storm was, the water was coming into his nest, so we put a cage up near it, covered over with waterproof paper and a little board, and put the Cuckoo in that with the door open. His foster-parents were very good and fed him there. But M——, having read that foster parents often die from starvation, not being able to feed their foster-child and themselves, made me help them by catching grasshoppers for the Cuckoo.

He got quite used to me, and M—— was meaning to write and ask D—— if one could keep a Cuckoo in a cage. Yesterday, the maid woke M—— and me up with the news that the Cuckoo was on the ground. We ran down and I watched him while M—— prepared a larger cage, having its door some way up the side. We hoped he would stay a bit in this new cage, for he seemed very weak and not able to fly. He had managed to get into a sweetbriar bush, and seemed quite relieved when I took him out. He sat on my hand and talked, and was quite pleased with his new cage. He sat in it for some hours, attending to his wing and tail feathers, and eating with equal pleasure the flies and things that I or his foster mother brought him. But between 11 and 12 o'clock, when we were sitting on the lawn with M—— and M——, I—— came running to tell us the Cuckoo was on the ground again. We fled down and found him in a rose bush. Again he seemed pleased to be caught, and I put him back in the cage and shut the door. I hoped the Redstart would feed him through the bars, but she would not, the bars seemed to be too close

together. After dinner we prepared him the old Parrot cage, hoping the bars would be close enough to keep the Cuckoo in and wide enough to let the Redstart in and out to feed him. But she meant to have him out, and at half-past three she succeeded and got him on to the perch outside the cage. After about five minutes rest there she called to him from a rose bush, and he fluttered off, the foster-mother in front. They went across the border, and M—— ran along one path and I along the other, in an agony lest a cat or kitten should turn up and get him, I thought we looked for all the world like the Redstart, only a little bigger! At last, to our great relief, his foster-mother got him into the little ash tree. He quickly went up from the lower branches to the top, and then we felt fairly happy about him, for he evidently could use his wings much better than in the morning. The Redstart seemed contented with that much for one day, and the Cuckoo passed the rest of the afternoon and the night there, for I went at 9 p.m. to see if he was still safe, and he was. This morning at six I went again, hoping to assist at his farther moving, but his foster-mother had been before me and had already got him away. I feel certain he is safe, for neither of the parents have come round all day, as they would have done to look for him if they had lost him, so I hope he is with them all right. We would have kept him, only all the books say they live on nothing but insects, and eat over 2,000 in a day. I did not feel competent to catch so many, and beside, what could we have done for him in the winter? So we decided to let him go in the natural way with his foster-parents. But he was a comical dear, and so tame."

CORRESPONDENCE.

THE MANY-COLOURED PARRAKEET.

SIR,—Could you give me a reason why the enclosed eggs (3) did not hatch? The hen Many-coloured Parrakeet sat *perfectly*, and very closely, and rather over the full time. She evidently tried *one* egg and found it was not right. I have wondered if the hen *turned* the eggs; or possibly the decayed wood at the bottom of the log-nest was too dry? I found one egg with two pecked holes in it, and the others were whole when I took them from the nest.

The hen had been out all the winter, and the cock, a most brilliant bird, was in perfect condition.

. . . . I have since wondered if the eggs were fertile. If not, I feel certain it would be due to the presence of the other Parrakeets, particularly the odd Rosella.

MARION JOHNSTONE.

The following reply was sent to Mrs. Johnstone:

I cannot detect any trace of there ever having been young, in any stage, in the eggs of your Many-coloured Parrakeet; I feel sure that they must have been clear eggs; so the cause of failure must be sought for in the birds rather than in the nest.

You do not say for how long you have had the male, nor when the two birds were put together. It is quite likely that one or other, or perhaps both, had not been long enough in this country, or even in their

aviary, to have become sufficiently naturalized to our seasonal changes, and possibly they were not in proper nesting condition in consequence.

It should be borne in mind that these Parrakeets naturally breed in our autumn; in this country, as a rule, the cold restrains them, more or less according to circumstances; but towards the end of our winter the restraint is overcome, and then it is that they are simultaneously (a most important point) most likely to be in good condition; and the longer this critical time is passed the greater the probability of clear eggs.

I have had five of these birds, but have never had an opportunity of allowing them to nest with any chance of success. If I should ever have such an opportunity, I should keep them comfortably warm all through the winter, in the hope that they might nest in the early spring. The darkness does not affect them like it does Finches and such like species; I sometimes think that they seem more inclined to breed in a dark place than in a light one: perhaps they feel more private.

Notwithstanding what may be said to the contrary, I cannot think that keeping your female out all the winter could have improved your chances of success.

In our next (August) number you will find an account of the rearing of one young Many-coloured Parrakeet by the Rev. C. D. Farrar, from which you may gather some useful hints. You will observe that, of the three eggs forming the clutch, two were clear.

I note the additional information you furnish in your second letter. Quite irrespective of what I have said, the presence of such a forward and interfering bird as an odd male Rosella would have been sufficient of itself to account for the clear eggs.

REGINALD PHILLIPPS.

THE BRAIN-FEVER BIRD.

SIR,—With reference to Mr. Haslope's note in your last number (above, p. 229) the 'Hawk Cuckoo' is not *Megalæma caniceps*, but some species of *Hierococyx*. *Megalæma caniceps* is a Barbet (= *Thereiceryx zeylonicus* Blanford, B. of Ind., iii. p. 86)—a very different bird. The bird described by Mr. Haslope is apparently the 'Koel'—*Eudynamys honorata*. Which is the real 'Brain-fever Bird'?

P. L. SCLATER.

[We thank Dr. Sclater for pointing out this error. The species which is known to Anglo-Indians as the 'Brain-fever Bird' is the common Hawk Cuckoo, *Hierococyx varius*. Mr. Finn tells us that its note fully entitles it to its popular name, "whether from its 'damnable iteration' or from its remarkable resemblance to the word 'brain-fever' repeated in a piercing voice running up the scale." (*B. of Calcutta*, p. 37).—ED.]

THE RED-BILLED CHOUGH.

SIR.—Two or three years ago, I bought a pair of Choughs (Cornish) in Leadenhall Market. Each spring since I have had them they built nests of broken sticks in logs of wood, but never laid any eggs, having destroyed their nests immediately after constructing them. I am anxious to breed some of these birds, and should like to know if any members of the Avicultural Society have done so, and what has been their experience. Are logs of trees, straw thatch, or boxes with holes in them suited for them to build their nests in? and of what materials should those nests be con-

structed? I feed mine on hemp-seed and hard-boiled eggs, with a certain amount of insects:—is this the most suitable food for these birds? As they belong to the Crow kind, I presume they should breed early in the spring.

The cock bird died some weeks ago, so I should be glad to purchase another in his place if any of your members have one to spare.

Some time ago I saw a statement in your Magazine that one of the members of the Avicultural Society had succeeded in pairing a Jackdaw and a Chough. I should be interested in hearing whether there was any offspring from the union.

WM. B. GIBBINS.

The following reply was sent to Mr. Gibbins:

Many years ago, I was visiting in Pembrokeshire for several weeks. At that time the Chough was a common bird along the cliffs; I have since been told that the species is now unknown in its old haunts, having been exterminated by the egg-collector. The trade egg-collector is a terrible curse, and should be exterminated in his turn.

I found many nests of the Chough. They were all in shallow clefts in the rocks, or on ledges in the cliffs. I did not notice one in anything of the nature of a deep hole, after the manner of a Jackdaw. They were all more or less in the open, some so fully exposed that I could see into them and count the eggs from the top of the cliff. Most of them were in rather inaccessible spots to climb to, but, when reached, were within arm's length. One was in a detached rock on the beach below the cliffs, and quite easy to get at when the tide was out.

I hardly like to trust my memory as to the materials. So far as I recollect, the nests were very like those of the Carrion Crow, but less bulky and more shallow. Thus the nests in new sites. In a few favoured positions there was quite an accumulation of material, the same spot having been resorted to year after year. The base of each nest, if I mistake not, was of sticks, and sheep's wool formed part of the lining—but I will look up some books and quote below.

The Chough, in the wild state, hunts along the shore, thrusting its curved pointed bill into holes and crevices and under stones, levering up and turning over smaller stones, all in search of insect life. I used to see them inland also with the Gulls, feeding over the freshly ploughed lands, doubtless on insect life in some or every form.

Your reference to the Jackdaw is, I suppose, to my own birds (*Avic. Mag.*, Vol. IV., p. 138); I do not recollect any other case. My female White Jackdaw, after a while, repudiated her own mate (by whom she had had young a year or two previously), and was taken possession of by the male Chough; all the eggs were clear, and are now in my cabinet. Thanks to my beloved neighbours, after I had obtained a female Chough I had to send the pair away: but I am satisfied that they would have bred.

I should suggest open boxes, hidden away in high and secluded nooks, and a good sized barrel or two, likewise hidden away, with one end off, excepting a *little* piece along the bottom of the end, to help to keep the nest safe inside. You do not say *how* you keep your Choughs. Their behaviour shews that they are *thoroughly dissatisfied*. Whatever the cause

they will never breed as matters now stand. Either the aviary is too small, too exposed, or too something they do not approve of.

Mr. St. Quintin (*Avic. Mag.*, Vol. V., p. 73) mentions some Choughs in his possession which annually nested in a box, but did not lay. The nests were made of birch twigs lined with horse-hair.

Mr. Howard Saunders, and also Dr. Butler in "British Birds with their Nests and Eggs," refer to the more or less successful breeding of the species in semi-captivity by Lady Dorothy Nevill (*a*). I observe that Dr. Butler connects my name with the "appalling" noise made by my Choughs. This is not fair to the Choughs. I never found the noise appalling, very much the contrary; and as to my neighbours——.

All authorities agree that the nest is built of sticks, stems of heather or "some deciduous plant," and lined with hair, or "wool and hair." Doubtless the slight differences are governed by the nature of the locality.

Breeding season—"End of April to middle of May." In Pembroke-shire, on the occasion I have referred to, the *first eggs were being laid* early in May.

On looking up my Notes, I find that my male Chough (I received the female one year later) was a most determined nest-builder, commencing as early as February. He carried sticks, leaves, roots, straw, practically whatever came to hand—but "preferred the roots." He was ever at war with the male White Jackdaw (at this time paired with a Chinese Blue-Pie), but would spend hours with the female in *her* old nest, a good-sized barrel, hidden away at the top of the aviary. Like the male White Jackdaw, he seemed inclined to destroy the eggs, so had to be watched and shut up. This is not unusual with large birds of this kind when nesting in a confined space. They ate raw meat, scraps of many kinds, insects, etc., but the female did not care for mealworms. Both were fond of hemp.

I have strong reasons for suspecting that, in the wild state, they occasionally fish in the shallows along the shore for crabs, shell-fish, etc., and perhaps even fish. They are as ready with their talons as a Hawk, seizing and holding things with great power, simultaneously "stocking" their victim with their bill; and their long legs render them indifferent to a little water; and observe how "they tuck up their trousers" out of the wet! I have been told, by the way, that the Chough in confinement does not tub; mine did "regularly but not frequently," according to my notes.

They are said to feed on berries, but I am without knowledge on that point.

They readily pounce on other birds, and doubtless kill the young of shore birds when they get the chance. Morris gives "grain and berries, and certainly carrion sometimes," of course in addition to various insects.

Your feeding would seem to be hardly sufficiently generous.

To return again to the materials for nesting, Mr. Howard Saunders refers to the long wiry stems of heather, and I have mentioned that my bird preferred roots to sticks. Probably, therefore, when there is choice, the bird likes something not too stiff; but doubtless, if a Chough is determined to nest, it will not be too particular about the materials. If you should succeed in obtaining another male, provide them with plenty of space,

(a) "Zoologist," 1882, p. 431.

with private nesting places fixed as high as possible, and feed principally on animal food and insects. Give cooked meat as well as raw, the latter not too bountifully especially to a single bird. REGINALD PHILLIPPS.

[The Choughs did not breed in the higher cliffs, but in the lower ranges. Why was this? The higher cliffs were occupied by Kestrels; but a Chough would not care a feather for a Kestrel. There was hardly a Chough's nest that I could not have climbed to with a little amateur assistance; several I did reach, some quite easily. The Kestrels' nests could have been reached only by a skilled cragsman with an experienced assistant and rope. I did not succeed in visiting one. I did try for one; but the faces of the high cliffs were rotten and impossible. Was this the cause? The lower cliffs were not rotten to the same degree. The comparatively few Kestrels could have found plenty of deep ledges where they would be sheltered from falling stones. And they are not always on their feet like the Choughs. The latter, nervous, cautious and restless, sitting, roosting and nesting nearer the surface of the cliff, may have objected to the crumbling precipices; on the lower cliffs, too, they would be nearer their food, and could watch the shore, and drop down in a moment on any attractive object or for the purpose of following their favourite pursuit of hunting amongst the stones for insects. Or were the high cliffs too much exposed to the cold winds and storms? In severe weather my Chough *would* go to roost in the birdroom, and would fight like a demon rather than budge one inch. Directly the weather softened out he would go, and nothing would induce him to roost inside. In this he differed from the Jackdaws who, whether normal or White, preferred roosting out of doors. Does this prove that the Jackdaw is more hardy than the Chough? Not necessarily; the former sleeps in holes, but the Chough rarely or never. As I have pointed out more than once, species that sleep in holes and boxes can stand cold which will kill others, perhaps equally hardy, which roost more in the open.

The more I consider the matter, the more satisfied I feel that the Choughs frequented and bred in the lower cliffs because of their restless nature, and desire to be constantly stretching their legs and using their bills among the stones. This view is supported by their preference for those cliffs against which the waves did *not* beat at low tide. Those that were not faced by any foreshore were avoided.

In those days I practically never saw a human on the shore, excepting only in one spot which the Choughs did not favour. But when I add that a railroad has long since been run into the neighbourhood I have said enough.—R. P.]

"IN DEATH NOT DIVIDED."

SIR,—A few weeks since I noticed a ragged bundle swinging to and fro in the wind from a crack in the N. wall of our Church. I wondered what it was, but it was too high up to see. To-day I found "it" on the ground, blown down by the gale. You will notice it is a cock and hen Sparrow securely fastened together by one leg each by a bit of thread. I suppose they were nesting in the hole, but how they *both* got so securely entangled I cannot think. What a pitiful little tragedy, and what suffering before the end came?

C. D. FARRAR.

BREEDING HYBRIDS.

SIR,—Perhaps Miss Hawke may be interested by my experience with Saffron-finches and Canaries.

I once had a cock Saffron paired with a hen Canary, and a most devoted couple they appeared to be, but all the eggs were barren. Imagine, then, my delight when I saw a young bird in the nest one day, and especially when I perceived both the old birds feeding it.

My joy, however, was damped when, as the hybrid grew up, I found that it was not the *rara avis* I had thought, but a common, uninteresting Greenfinch-Canary mule! There were several cock Greenfinches and some more hen Canaries in the aviary, but I had never noticed any of the former paying attention to the Saffron's mate, who appeared to be devoted to her handsome spouse. Nevertheless and notwithstanding, the facts are as here related; but, although many other nests from the same pair followed in after years, there never was a fertile egg in any of them, so that hybrid must have been an accident after all; perhaps another hen Canary laid the egg from which it was hatched. W. T. GREENE.

Referring to the notice of Mr. Frank Finn's book on *The Birds of Calcutta*, which appeared at page 169, the author asks us to state that it can now only be obtained from Mr. R. H. Porter (7, Princes Street, Cavendish Square), and not from Calcutta.

THE SOCIETY'S MEDAL.

The Society's Medal has been awarded to the Rev. C. D. Farrar, for having bred the Many-coloured Parrakeet, *Psephotus multicolor*, it is believed for the first time in the United Kingdom.

Mrs. Howard Williams has succeeded in breeding several specimens of the Ringed Finch, *Sticteptera annulosa*, as announced at page 239 of our last issue.

A few Ringed Finches have since been reared by at least one member; but it is believed that Mrs. Howard Williams' birds were the first.

Mrs. Johnstone has succeeded in breeding two specimens of Barnard's Parrakeet, *Barnardius barnardi*. No other instance is known of the rearing of the young of this Parrakeet.

Articles on the successful breeding of these two species are now published.

The Society proposes to award a Medal to each of these ladies for having bred these species it is believed for the first time in the United Kingdom. If any previous instance should be known to any of our members or readers, it is requested that they will be so good as to communicate at once with the Honorary Secretary.

We have received an article from Miss R. Alderson on the successful breeding of the White-winged Zenaida Dove, *Melopelia leucoptera*, which we hope may be published next month. If any of our members or readers should know of any previous instance of the breeding of this species in the United Kingdom, they are requested to communicate with the Honorary Secretary. It was imported last year in considerable numbers, and has been called by dealers the Pecunia Dove.

POST MORTEM EXAMINATIONS.

RULES.

Each bird must be forwarded, as soon after death as possible, carefully packed and postage paid, direct to Mr. ARTHUR GILL, M.R.C.V.S., Veterinary Establishment, Bexley Heath, Kent, and must be accompanied by a letter containing the fullest particulars of the case.

If a reply by post (in addition to any Report that may appear in the Magazine) be required, a stamped and addressed envelope must likewise be sent.

BLUE BONNET PARRAKEET hen. (Mr. Jas. Cooper). Perfectly well yesterday, so far as I could see. [Death was due to apoplexy].

GREEN SINGING FINCH. (Mr. C. F. Dell). Was panting as if it had a cold; next day found dead. [Death was due to apoplexy].

GREY SINGING FINCH. (Mr. A. Swan). Suffered from diarrhoea, for which it was treated, but it gradually sank and died. [Death was due to enteritis. It was a cock].

GREEN SINGING FINCH. (Mr. W. E. Renaut). Just finished moulting; became suddenly ill and died in twelve hours. [Acute enteritis was the cause of death. It was a hen].

REDRUMP PARRAKEET. (Mr. H. W. Burgess). Been ill a few days; put him in a cage and found him dead next morning. [Bird died from injuries received: he had severe contusions on skull, back, and wings. I should suspect the Javan Parakeets].

BENGALESE. (Mrs. Charrington). In apparently good health half-an-hour before found dead. [Your bird died of apoplexy].

AVADAVAT. (Mr. C. F. Rycroft). Did not appear very lively, and an hour after was found dead. [Your bird died of apoplexy].

RIBBON FINCH hen. (Mr. H. W. Burgess). Found dead. [Egg-binding was the cause of death].

BUDGERIGAR. (Rev. T. C. Lewis). In large outdoor aviary, with plenty of food. [Acute inflammation of liver].

GREENFINCH. (Dr. W. G. Creswell). Found dead in cage. [Death was due to apoplexy: a very common disease of these birds].

Cock GOLDEN PHEASANT. (Mr. Jas. Cooper). Found dead in aviary. [There was extensive liver disease; the intestines were in a very advanced state of decomposition, and in my opinion there had been acute enteritis. He was having a very bad moult, which was doubtless due to debility].

MOCKING BIRD. (Mrs. Noble). Had a fit a few weeks ago, but recovered rapidly; found dead yesterday. [Your bird suffered from chronic liver disease and dropsy].

WEAVER. (Mrs. Johnstone). Found dead. [The bird died of apoplexy].

FIRE FINCH. (Mrs. Sherston). Has looked puffy occasionally; was found dead. [Your bird died of congestion of liver].

GREEN AVADAVAT. (Mr. Rycroft). Yesterday was very fluffy; found dead to-day. [Death was due to pressure on the brain by an extensive blood clot].

ARTHUR GILL.



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THE ST. LUCIA PARROT.

By LADY THOMPSON.

The St. Lucia Parrot (*Chrysotis versicolor*) is one of the three largest Amazons, but it is very unlike *C. augusta* and still more unlike their neighbour of St. Vincent, the *Chrysotis guildingii*, which does not possess the familiar blues and greens of all other Amazons.

The *Versicolor* is not uncommon in the high woods of St. Lucia, but very few uninjured specimens are found in captivity, and even in St. Lucia they command a high price alive. Unfortunately dead birds may be found almost every week in the market of the little town of Soufrière, and they are eaten as a delicacy by both black and white Creoles. The Parrots, called in *patois* "Jacquots" or "Perroquets," are protected by legislation during the nesting season, but, owing to the wild nature of the country where they are found, it is difficult to enforce the law. I have heard the unmistakable cry of the Parrots more than once in my rides through mountain tracks, and once I saw three birds together.

Of those that I have known in captivity, one only was a good talker, and that bird had been for many years in the possession of a Creole family in St. Vincent. The other caged birds I have come across were tame, but the only words I have heard them speak were the usual Creole "Chère cocotte" and "Macac" (*i.e.*, monkey, a *patois* term of abuse). But both these words so closely resemble the natural little cry the birds constantly utter that I rather doubt if they spoke genuine words at all.

The three birds that I had became perfectly tame, but they were, I thought, uninteresting pets; as a rule they took little interest in their surroundings, but, when excited by certain sounds, I have seen them spread their tails, and perform a kind of

dance, uttering a long purring sound, quite unlike their usual cry. The difference in size is seen in the following dimensions :—

<i>Chrysotis augusta</i>	..	..	19in. long.
„ <i>gouldingii</i>	..	..	17in. long.
„ <i>versicolor</i>	..	..	16·5in. long.
„ <i>bouqueti</i>	..	..	16in. long.
„ <i>æstiva</i>	..	..	14 or 15in. long.

By THE HON. AND REV. CANON DUTTON.

My experience of *Chrysotis versicolor* has not been extensive or long. Lady Thompson brought me one from St. Lucia, which I had on May 27th, and besides that I have seen two. One, in the Zoological Gardens from which Mr. Goodchild drew the plate, and one, in a dying state, in the Berlin Gardens.

As mine has not the rich colouring of the one I saw in the Gardens, I gather it is young, and has not yet gained its full plumage. If Mr. Goodchild could have found the time to sketch my bird, I should have had it done to have placed the difference of plumage on record. The one in the Gardens is, I regret to say, now dead. It was very tame, and delighted in being noticed. From a bird-lover's point of view, it was quite thrown away in the Gardens.

I look on *C. versicolor* as the handsomest of the Amazons, though *C. gouldingii*, with its mixture of orange, yellow, brown, and blue, runs it very hard. It forms the third of the great Amazons.

C. augusta is the largest, and then come *C. gouldingii*, and *C. versicolor*. I cannot say that I have seen a tame Goulding's, but I have heard of one. The *Augusta* and *Versicolor* are both very tame, though *Augusta* was obtained by a shot. How my *Versicolor* was secured I do not know, but it is so very tame and so loves notice that it makes me think it must have been brought up from the nest.

Its size is no doubt a drawback to it as a pet ; as a parrot cage, which would be big for a Grey Parrot, would be too small for this species. I keep it in a cage originally built for a monkey, and yet that is rather too small for it. The size of the cage is 2ft. sq. by 3ft. high. It would be large enough if the bird were not fond of flapping its wings. It is then that it is rather small.

I must admit that the bird is *very* noisy. I can stand more than most people can from Parrots, but *C. versicolor* has to spend a good deal of its time under a sheet, when I am in the room. I expect it would make a good talker, if any one would devote his time to it. But as my Spix Macaw, who lives in the study too, is picking up a good deal of conversation, without any special attention, I am not without hopes that *Versicolor* may do the same, especially as the Spix is certainly six or seven years old.

FURTHER NOTES ON THE RACKET-TAILED PARROT.

Prioniturus platurus.

By F. E. BLAAUW, C.M.Z.S., M.B.O.U.

Some excitement having been caused in the Parrot-loving world by the arrival, in the British Islands, of a living specimen of this species, it may interest the readers of the *Avicultural Magazine* to hear of an example which I obtained as long ago as 1888.

This bird was an adult male in fine plumage, with the racket feathers of the tail well developed. Unfortunately it arrived in mid-winter, during a rather sharp spell of frost, and so probably took cold on the way from Rotterdam to my house.* The result was that it was not in very good health when it reached me, and it did not live very long. It was quite tame and gentle, not moving much during the day, but generally becoming much more lively, and sometimes even very much excited towards the evening. It would then run backwards and forwards on its perch, making some slight noise, and whilst so occupied, often looked so sleek and well that I had every hope it would ultimately recover. However, it did not get well, but became slowly worse, and died only a few weeks after it had come into my possession, I need hardly say much to my regret.

This Parrot fed on seeds, with the addition of stale bread soaked in milk, with some sugar over it; a food which I have often found very beneficial to Parrots when in rather a poor condition.

* Herr Blaauw lives in Holland.—Ed.

FIELD NOTES ON SOME BAHAMA BIRDS.

By J. LEWIS BONHOTE, M.A.

PART I.

On returning from a journey in distant regions one is expected, if one is anything of an Ornithologist, to write about the birds one has seen; and more especially is this the case when the object of the journey has been the study and collecting of natural history objects. I feel, therefore, that I should be wanting in my duty to the Society did I not endeavour to give a short account of some of the birds seen and procured.

The Bahamas are a group of islands and isolated rocks of coralline formation, lying S.S.E. of Florida, from which they are separated by the Gulf Stream; the resident avifauna is, in consequence, rather scanty, the greater part of the birds being migrants from the United States with a small minority from South America and the West Indies proper.

The country may be divided into four classes, each of which contains its own characteristic birds, and I shall propose to deal with each in turn; they are as follows:—

1. The thick bush known locally as “coppet,” consisting of a dense mass of trees and bushes of an average height of some 20 feet, and forming, on most islands, the greater part of the vegetation. Certain portions of the coppet are swampy, and in such places the bush gives way to long rank grass interspersed with clumps of palmetto, and in the wetter places with a considerable growth of mangroves.

2. The “Pine Barrens” are practically large stretches of bare rock with a very slight sprinkling of soil on which the pine tree alone flourishes. The pines grow to a good height, and the ground below is fairly clear, although, owing to the unevenness of the rock, quick walking is out of the question. Here and there are clumps of bushes round which most of the birds seem to congregate.

3. The open swamps or lagoons are great plains of mud and rock, which, raised but a few inches above sea level and intersected by broad and shallow lagoons, stretch out on all sides as far as the eye can reach. Practically the only vegetation on these bare tracks is the universal mangrove, which in most places grows only to a height of two or three feet, but in the centre of the lagoons large clumps form islands and reach a height of 15 to 20 feet.

4. The outlying rocks, known as "Cays." These are bare rocks lying out at sea often well out of sight of the nearest mainland and generally marking the seaward boundary of the reef. In most cases these islands are destitute of vegetation, in others they are covered with a growth of prickly pear or small bushes of a very thorny character.

I should perhaps have stated that nowhere in these Islands is there any soil as we understand it in England; the only soil is that which has been formed by decayed vegetation collected in holes and crevices on the surface of the rock and has at the most an average depth of three or four inches.

Having thus dealt roughly with the general features of the islands we will now consider some of the most characteristic birds inhabiting the copped.

The Bahama Mocking Bird, a fine large species about the size of our Missel Thrush, though of rather slimmer build, will probably be the first bird heard by the observer; he is common on most of the islands, and the smaller the island the more abundant he seems to become. Last March we visited some of the islands forming the reef of Abaco, and on landing the whole island seemed alive with the song of these birds although not one was to be seen; however, I crept along under the thick bush, which covered the interior of the island, and sat down under a tree where the ground was somewhat clearer. At first I saw no signs of a bird and only heard the song at some little distance, then I made out a bird sitting about three feet away, and then another and another until I was able to count ten, within a radius of some 15 feet, the majority of whom soon re-commenced singing.

Some author, with whom I quite agree, once suggested that observers who could not describe the songs of birds had best not attempt it, and consequently I will content myself with saying that the song most reminded me of that of the Song Thrush, although it struck me as being rather more varied. I was staying at that time at a sisal plantation (a), where the American species (*M. polyglottus*) abounded, and was thus able to compare the habits of the two. In the first place the American bird was by far the most confiding and lived round the house, even nesting on an orange tree close to the back door. Everywhere in the open country where the land had been cleared, sitting on the topmost bough of a sisal pole (as the tall flower of that plant is

(a). A plant, the fibre of which is used for ropes.—J. L. B.

called) might be seen one of these birds pouring out his song hour after hour apparently to the empty air, but on closer inspection his mate would be revealed sitting on a lower branch and doubtless thoroughly approving of the performance. Not so with the Bahama form: he prefers the thick bush, being aware from the experience of many generations that a sub-tropical sun can be hot. Although I have occasionally seen him sing on the ground, he prefers the upper branches, but generally takes care that there is a leafy bough just higher than himself to screen him from the sun and observation.

Another quiet and sombre inhabitant of the coppet, as well as of the gardens, is the Bahama Sparrow (*Euetheia bicolor*) better known to aviculturists as the Cuba Finch, with which it is nearly if not quite identical (*b*). This bird is remarkably tame and hops about the verandahs, even coming into the house to pick up the crumbs from the table. The nest is a very pretty domed structure placed about four or five feet from the ground at the top of a long straight sapling. It is made entirely of grass woven and matted together, with the entrance hole at the side, but without lining of any kind; the eggs, usually three in number but sometimes more, are dull white in colour, with brownish spots toward the larger end.

A most characteristic bird of the Bahamas is the little Honey Creeper (*C. bahamensis*) known locally as the Banana bird. This beautiful little bird, which is about five inches in length, belongs to a typically West Indian genus, the forms met with on the various islands differing slightly from each other. The upper parts are black, the underparts and rump yellow, the chin and a broad stripe over the eye pure white. The bill is slightly curved downwards and is moderately broad at the base, but ends in a sharp point; a noticeable feature of this bird is the beautiful crimson patch of skin formed by the loose skin of the gape, and occupying the same relative position as the loose fleshy gape so conspicuous in the nestlings of many species. This bird is common throughout the islands both round houses and in the coppet. It has a peculiar habit of drilling a small circular hole at the base of the large flowers of the Hibiscus, but whether for the sake of the honey or insects I cannot say. As a rule it utters no sound beyond a short shrill note; in early spring, however, it has a very sweet little song reminding me not a

(*b*). The Dusky Finch (*Phonipora* or *Euetheia bicolor*), having no yellow on the throat, is I think invariably treated as distinct from either the Cuba Finch (*P. canora*), the Olive (*P. lepida* or *olivacea*), or the Little or Yellow-throated Finch (*P. pusilla*).—R. P.

little of our Common Wren. The breeding season is in March when it builds, I believe, a dome-shaped nest, but I have never actually taken one. When the young first fly it may be met with in family parties, being especially partial to a certain flowering tree (sp. ?), where it may almost always be found in numbers at the end of April and the beginning of May.

Walking through the thick coppet one is often startled by hearing at one's ear a clear but short song repeated again and again with constant frequency. The vocalist will need a long search to find, as his colour harmonises well with the thick tangle in which he lives ; his nature is, however, inquisitive, and instead of retiring, when his domain is invaded, he advances, keeping, it is true, well out of sight, but nevertheless singing all the time. If you move to try and get a better view of the unknown songster, the song will cease only to be repeated a few seconds later from a more distant bush ; should you, on the other hand, remain still, a dark green shadow will soon appear gradually climbing through the thicket by short hops till, as it emerges from the thickest of the foliage, you recognise the beautiful little white-eyed Vireo (*V. crassirostris*). A little more patience and you will detect his hen, as curious as her lord, but lacking his boldness, and peeping out at you shyly from the rank herbage near the ground. Several species of this genus are found in the Bahamas ; *V. crassirostris* appears to be resident, but in spring and summer the most common and conspicuous form is *V. calidris*, the Red-eyed Vireo, a bird by no means as shy as the previous species, though from its dull colouring very difficult to distinguish amid the surrounding scenery. Its song, which is rather monotonous and not unlike that of our common Chaffinch, is generally uttered from a moderate elevation in a thick bush.

When returning home at sunset, twilight being absent in these latitudes, except at midsummer, it is surprising how, if one's eyes be closed, one is carried back to the green lanes of England. The air, especially at spring time, is full of the songs of many birds ; the confused and hurried notes of the Bahama Woodstar, as the local Humming Bird is called, the shrill squeak of the Creeper, the harsh scream of the Rain Crow, and the cooing of the Doves, all mingle to form a confused but none the less suitable accompaniment to the Thrush-like notes which ring forth high above all the rest. The large majority of these last proceed from the Mocking Bird, but a very fair proportion emanate from a very beautiful species,

known locally as the Blue Thrasher (*M. rubripes*) (c). Like the Creeper, this is also a typical West Indian form, of which the races on the various islands differ slightly from each other; it is of moderate size, having a total length of nine inches, of which five are made up by the tail. The general colour above and below is slate grey, the quills are black with broad light external edgings of paler grey; the chin, fore part of the throat and the space in front of the eye are black, while a small patch at the base of the lower mandible is pure white. A most handsome finish is given to the general appearance by the bright crimson of a ring of skin surrounding the eye and of the legs. Although tolerably common this bird is a great skulker and thus frequently escapes observation; it generally moves about on the ground or in the lower branches of thick coppet, and, when disturbed, it renders itself, by remaining motionless, quite the reverse of conspicuous. The male sings, as a rule, at a moderate elevation in somewhat similar situations to those chosen by the Bahama Mocking Bird, but if he fancies himself observed he will change his post so frequently that one is often led a long way before a glimpse of him can be obtained.

Round many of the trees, especially the cocoanuts and almonds, may be noticed a series of rings formed by small punctures in the bark about a quarter of an inch in diameter, which surround the trunk and are in many cases continued from near the ground to the top of the tree. These are the work of the Sapsucker (*S. varius*.) which in its immature dress is a very common winter visitor. I have never seen it actually tapping for the sap, but I presume it works like a typical Woodpecker which it closely resembles in structure. Its size is that of our Greater Spotted Woodpecker (*D. major*).

Lying as they do on the edge of the tropics the Bahamas contain several well-marked forms of Cuckoos, whose chief external resemblance to our familiar bird lies in the shape of the foot, which is zygodactylate, *i.e.*, having two toes pointing forward and two backwards. The typical Cuckoo note so pleasing to our ears every spring is unfortunately absent, and the only note they make is a short harsh scream which has certainly nothing to recommend it from a human standpoint, though it may bring delight to the Cuckoo's breast. The general shape and proportions of these birds are much as in the old world form, but their flight is weaker and seldom long sustained, so

(c). *Mimocichla bryanti*, which is common in the Bahamas, whereas *M. rubripes* is supposed to be confined to the island of Cuba.—R. P.

that their hawk-like appearance is almost entirely lost. There are three species which are deserving of notice, viz. :—*Coccyzus minor*, *Sauvothera bahamensis*, and *Crotophaga ani*, but the last-named we will notice later on when dealing with the fauna of the pine barrens. *Coccyzus minor*, a near ally of the American Yellow-billed Cuckoo, is about 13 inches in total length, of which the tail forms seven; the general colour of the back is olive grey, and of the underparts ochraceous buff, the colour being deepest on the vent and abdomen; the bill and legs are slaty blue, the basal two-thirds of the lower mandible being yellow. This bird, like most of those inhabiting the coppet, is rarely seen, but once the note is known it can be easily found as it is quite tame, not attempting to fly away on one's approach. This species builds a nest, albeit a somewhat flimsy structure, made of twigs and resembling that of a Pigeon; the egg is large for the size of the bird and of a blue colour, having frequently a rough deposit of chalk on the outside. According to Audubon the eggs are laid at intervals, so that in some cases young and fresh eggs are found together in the same nest. The other species of Cuckoo which I will notice here is peculiar to the Bahamas, although nearly allied forms are found in Porto Rico, Hayti, Cuba, and Jamaica. It belongs to a group of Cuckoos known as Ground Cuckoos, and runs, considering the shortness of its legs, with considerable agility. In size, shape and colouring it agrees closely with the previous species, but is considerably larger, having a total length of 18-20 inches, and a large bare patch of skin above the eye of a bright red colour. From the habit of uttering its cry most vigorously before rain it is known locally, in common with the previous species, as the Rain Crow.

It is a well known law of nature that a similarity of environment tends to produce similar modifications and habits, consequently, strange as it may seem at first sight, it is only natural that one should meet in the palmetto swamps of the Bahamas with a bird whose habits closely resemble those of the Grasshopper Warbler, a common and well known inhabitant of our fens; I refer to the Maryland Yellowthroat (*G. trichas*). This bright coloured little warbler with yellow breast and, in the male, a black mask across the crown and sides of the face, is generally distributed throughout the islands, preferring open swampy country where the vegetation is low growing but thick and rank. In such a spot throughout the winter its distinctive note may be heard repeated, as is usual with birds inhabiting places of dense growth, with great frequency. It is not so often seen, but has

the habit in common with the Grasshopper Warbler of sitting on a high stem of grass and, on being disturbed, of diving down into the thick vegetation whence it can only with difficulty be made to show itself. From a systematic point of view these birds form a difficult and intricate group, into the details of which we need not enter here. Mr. Palmer has lately, in the *Auk* for 1900, written a paper on the subject, and seems to have fairly established the fact that those birds that pass the summer farthest North have their winter quarters farthest South ; a feature which is probably common in many species, although at present it has not been definitely proved for any. There is another species of this same genus (*Geothlypis rostrata*) also inhabiting New Providence, but, curiously enough, it is found in quite a different situation, being almost entirely confined to the pine barrens or dry coppet. This species is peculiar to this one island and is much finer and larger than the migratory form ; it is, however, much the same in its habits, and is excessively difficult to find. As is the case with most island races, the legs have become larger and stronger while the wings are proportionately shorter, being scarcely larger than in the smaller form.

While still dealing with the small birds, mention should be made of the Chestnut-headed Warbler (*D. palmarum*). This little warbler is dull brown on the back and dirty white below, but wears, during the summer, a bright patch of chestnut on the head. It is common everywhere, especially in and about the town, where it may be seen in almost every street and garden. In its habits it is much more of a ground bird than its congeners, merely perching on trees to roost or when alarmed by passers by, and, as far as I could judge, it seems to feed almost entirely on the ground. *Dendrocca discolor*, the Prairie Warbler, may be taken as the type of a typical Warbler : it is a bright and sprightly little bird with a yellow breast and green back, and spends its time diligently searching the trees and shrubs for insects, occasionally darting into the air after them, like a Flycatcher, and the next minute hanging head downwards investigating the interior of some bell-shaped flower after the manner of a Tit. It is only a winter visitor but it stays so late, and appears again so early in the autumn, that I am inclined to suspect that a few may remain to breed. One more species of interest may be noticed before we leave the coppet, namely the Grosbeak (*L. violacea*) which is known locally as the Spanish Paroquet. In this bird the sexes are different, the male being jet black with

a bright patch of reddish brown above the eye, under the chin, and on the under tail coverts ; in the female and young the black colour is replaced by olive green. It seems to me in every way a very shy and uninteresting bird. I did not discover their note nor did it appear to have any habits worth recording ; they come in numbers to feed on a tree which bears a small black berry, and were it not for that habit my acquaintance with it would have been most scanty, although the bird is by no means rare.

(To be continued).

NESTING OF THE CAT-BIRD.

By the Rev. C. D. FARRAR.

(Continued from page 228).

About a week after "the late sad event" (see p. 227) I noticed the female Cat-bird very busy repairing her nest. She is evidently fond of colour, for she stuck several Blue-bonnet's tail feathers in the outside, and altogether made it a very neat and natty affair. After about a week of more or less desultory labour she deposited three eggs, rather larger than the first clutch, from which I infer that it was her first effort. No bird could have sat in a more exemplary manner ; and on the twelfth day her efforts were rewarded by the appearance of one little bird to be followed the next morning by another. The remaining egg was clear ; and I hoped to save it, but the young birds kicked it out and broke it the day they left the nest.

One of the most difficult things in the world is to get these birds to build, lay, hatch, and rear, even half way—as I know by sad and bitter experience, but I felt that if success was to be mine I would win it.

The difficulty I knew, of course, would be the feeding. People may tell you a lot of fairy tales about giving birds raw meat chopped up and mixed with soft food, to give the old ones plenty of healthy employment ; but the said old birds will not so much as look at it, much less feed with it. Live insect food of some sort is the only thing they will feed with, and if they can't get it the young will be allowed to die incontinent. I felt, therefore, that I had six weeks of healthy exercise before me ; and that there would be no need for any summer holiday.

A few days before hatching time you might, one evening, have seen the Vicar of Micklefield and his youngest son sallying

forth with a bag, a spade, and a sieve. We were not going poaching—though our appearance was suggestive—we were only bent on ant hunting. We walked many miles; we turned up acres of ground, or at any rate we thought so, and the result of all our toils was about a thimble full of eggs. The season was not advanced enough. However, we went forth again and had better fortune and good kind souls helped me, and my supply of live bait, like the widow's cruse, has never failed, though often on the verge of doing so.

The parent Cat-birds were really admirable; both seemed to have recognised from the first that their "reason of existence" was to tend and foster those two delicate little beings; smoothing the rough places and acting as buffers between them and the east winds of life.

For some days I felt miserably anxious as to results, as uncertain of the morrow, as an early Christian in the days of Nero. On one point, however, I had no anxiety—the weather. Had the nest been out of doors I should have felt very uneasy as the weather turned that nasty, that as a friend said to me, "you wouldn't meet a Christian out of doors, unless it was a snipe or a dispensary doctor."

Early and late the feeding went on, and only, as Longfellow says, when "The shades of night began to fall" did rest come to the weary parents and feeder.

I left the young birds severely alone. About the eighth day they opened their eyes. They were hatched on July 12th. They left the nest July 24th. When they came out they were fully fledged, but had no vestige of a tail. One was very dark in color; the other much lighter. I inferred that they were cock and hen, and my surmise has proved correct. The cock bird has a very indistinct black crown, and a very faint red color under the tail; the legs of both, which were at first flesh color, are now turning black like those of their parents.

It is very pretty to see the old birds feed. They always get above the youngster to be fed, and pop the provender into his mouth like lightning. When I tell you that they think nothing of giving each youngster seven or eight mealworms at a mouthful, I am reminded that mealworms, like silver in the days of Solomon, are nothing accounted of by the parent Cat-birds.

As I stand and look at these young Cat-birds I feel much like an astronomer who has discovered a new planet; like the



WHITE-CROWNED PIGEON.
Columba leucocephala.

Photo. by D. Seth-Smith.

Bale, Sons & Danielsson, Ltd.

good little boy and Tom Sawyer. I want to come out and "spread myself."

Life for once has taken a leaf out of my childhood's Story Books. Everything has ended happily, and a great content has come to a deserving person—to wit, myself.

The following lines, which I came across the other day, so well describe the song of the Cat-bird, that I make no excuse for quoting them here.

A Cat-bird sat on a mulberry spray,
And told his tale to the night:
He had nothing to tell, but he told it so well,
That the moon she was filled with delight.
She listened all night, and she listened all day,
To the mystic charm, which I might as well say,
Was nothing on earth but a 'Too-ral-a.
Such a ravishing, rollicking, mellowy strain,
It was half of it gladness, and half of it pain,
Till it seemed she could listen for ever and aye,
To his pretty little too-ral-oo-ral-a.

THE WHITE-CROWNED PIGEON.

Columba leucocephala.

By D. SETH-SMITH, F.Z.S.

The subject of this paper inhabits the Greater and Lesser Antilles, Floridor Keys, Honduras, Cozumel Island and the Bahamas. Mr. Bonhote met with it during his recent expedition to the Bahamas, and, at my request, has most kindly supplied me with the following notes; he writes:—

"The White-crowned Pigeon is, in the Bahamas, essentially a sea-loving bird, breeding sparingly everywhere, but mostly on very small islands lying some five to ten, or even twenty miles from the larger islands. On some of these small islands they nest in thousands, generally rather late in the year—about June, and in August shooting parties are organised against them. When nesting away from the mainland there are two great flights morning and evening, when the birds go and return from their feeding places on the mainland. They are very shy, and inhabit the thickest bush, where they are difficult to see and shoot. The nest is the usual flimsy structure of twigs, and is generally placed about three or four feet from the ground near the tops of the bushes, and the eggs in no way differ from those of the other *Columbidæ*. These birds are not often met with during the winter in the Bahamas, whether because they retire to the thickest bush, or because they are migratory I am not prepared to say."

The White-crowned Pigeon, although common enough in

the West Indies, is very seldom brought alive to Europe, and when, in the autumn of last year (1901) some of these birds were imported by Mr. Parker, of Frodsham, and offered for sale, I was tempted to try a pair in my aviary. On arrival I found that the male was unable to fly, and an examination shewed that one of its wings had been seriously injured, presumably by a shot. Mr. Parker, however, promised to do his best to secure me another specimen from the West Indies, and early last spring a fine male arrived. The female was as wild as a hawk from the first, but the male, which was said to have been bred in captivity in Jamaica, appeared at first to be quite tame. He soon, however, caught the wild fever.

Although very timid, it was evident, soon after the arrival of the male, that the pair intended to rear a family; but they were so wild that I hardly expected they would succeed in their object. Whenever one approached they would fly up with a tremendous commotion, scaring every other bird almost out of its wits. However, as the weather became warmer and the birds were allowed to fly into the outside wire enclosure, the White-crowns were left more in peace, and they built a nest forthwith. In each of the first two nests one egg only was laid, and it was hatched in both cases, but the young bird, when about a fortnight old, was left, and a new nest begun. In the third attempt two eggs were laid, which were transferred to a pair of tame pigeons, which had been kindly lent to me by one of our members for the purpose. These hatched and fed the young ones also until they were nearly able to fly, when they apparently discovered that the ugly little dark grey birds were imposters, and promptly discontinued to feed them. The White-crowns had, meanwhile, laid again in a very quiet corner of the aviary, in some faggots, about four feet from the ground. Here they were entirely undisturbed, the consequence being that a fine young bird left the nest on the first of July. It was nearly as large as its parents, and of a dirty brownish-grey colour all over. No white was visible on the crown, although the feathers on that part were slightly lighter than those on the other parts of its body.

From the first day it left the nest this youngster was as wild as it could be, dashing itself about whenever anyone went into the aviary, and it finally succeeded in scalping itself in one of its mad headlong dashes.

The parents have since reared a pair of nestlings which were hatched on August 8th, and left the nest about August 30th.

They are not quite so timid as their elder brother (I believe the first is a male). They are evidently a true pair, as one, presumably the male, is decidedly darker in colour than the other, which is more or less brownish. The supposed male also has a decidedly lighter cap.

The White-crowned Pigeon is a very handsome bird, about fourteen inches in total length. The male is dark slate-blue, or plumbeous; the top of the head, and a line below the eye, spotless white; the nape dark maroon, and below this "a cape extending upon the sides of the neck of bronzy-green, each feather distinctly bordered with velvety-black" (*Cat. Brit. Mus.*) The legs and feet are bright red; the bill carmine-red at the base, and greenish-white at the tip; iris pale yellowish-brown.

The female is slightly smaller than the male and much duller grey; top of the head dirty white.

I can only recommend the White-crowned Pigeon to those who have *large* aviaries. It is undeniably handsome, and breeds freely if quite undisturbed.

THE AUSTRALIAN WAXBILL.

Egintha temporalis.

By REGINALD PHILLIPPS.

This is a very common species in Eastern Australia; and the name of "Sydney" Waxbill, the one invariably given to the species in this country, is about as appropriate and sensible as that of "Bohemian" Waxwing, which was customarily applied in my younger days to the widely distributed *Ampelis garrulus*. The name of Australian Waxbill, which is the one given by our Zoological Society, is consequently preferable in every respect. It is sometimes called the Australian Grey Waxbill; in Australia it is commonly referred to as The Waxbill; and, in *Nests and Eggs of Australian Birds*, Mr. Campbell calls it the Red-browed Finch.

Although found in Queensland*, New South Wales, Victoria, and South Australia, the species is not commonly imported into this country, which is unfortunate, for it is a quiet

* The smaller northern bird is possibly a distinct variety or species.—R.P.

amiable bird in the aviary, moderately hardy, and, as will be seen from the following account, apparently a free breeder *when it is given a fair chance*. Whether it has actually bred in this country or not I do not know. Our Vice-President, Mr. Wiener, who, by the way, was the first to breed the Parrot Finch in this country, says :—" With me the Australian Waxbill never attempted to build a nest, whilst Dr. Russ managed to see several broods hatched, but even he did not succeed in bringing them up." Mr. Gedney refers to the breeding of the species in a light and airy way, but, as he says nothing definite, and makes no reference to the immature plumage, we feel inclined to think it likely that he has neither bred this Waxbill himself nor seen the young bird. Mr. Fillmer, in his little Handbook on Waxbills, which was published in 1897, says :—" Mr. Gedney speaks of the Sydney Waxbill as being easily bred, but I am not acquainted with any English aviculturists who have succeeded in breeding it." Under these circumstances it would seem to be my duty to place on record and give a short account of the successful rearing of three young Australian Waxbills in my aviary this summer.

I have nothing of interest to record of my earlier experiences of this species, but will confine my story to three specimens which reached my hands on the 12th October, 1901. On that day Mr. Carrick, just returned from Australia, sent me a pair, and threw in an odd female. Whether it was the despised bird whose domestic life is now about to be immortalized in the pages of our Magazine, or the true pair which were bought and paid for, I do not know. Many a time in the history of the world it has been the despised one that has eventually taken the front place.

The three birds were in good health and plumage when they arrived, and retained their good condition all through the winter ; and on the 17th of May of this year they were transferred to my garden aviary.

In the centre of the aviary there is a lime tree. Last year, instead of cutting the long shoots, I twisted them round and round and in and out ; and in the early spring of this year I continued the process, thus forming a really good platform some three feet long by nearly two broad on which the birds might comfortably build their nests, the shoots of the year rapidly growing up and forming a beautiful shelter. I have adopted the same course with other trees and find the result most satisfactory, quite a number of species adopting these trees for nesting purposes.

Immediately they were enlarged, two of the Waxbills commenced to build in the lime tree, the odd female frequenting the spot with a motherly desire to assist ; but I fear she was not greatly encouraged by the happy couple who, after the manner of "happy couples," thought only of themselves, and had but scant sympathy with their less happily situated neighbours.

This first nest of the Waxbills came to nought, the poor birds being flooded out by heavy rain, or discomfited by the cold. On the 19th of June they were again building in the same tree, but in another place. They were greatly disturbed by the Bichenos, who certainly tried to turn them out of their nests, and who reared a brood of young in the same tree, though I am not sure in which nest. A pair of Ringed Finches also successfully bred in this tree, or close by, the three broods being reared to maturity simultaneously. During the whole period, the Bichenos were incessantly attacking the other four parents, who, immediately their young were old enough, transferred them and themselves to the most distant parts of the aviary, leaving the Bichenos in proud possession of these three nests and of that of a pair of Blue-breasted Waxbills in a thorn close by who, not having the quiet steadfastness of the others, allowed themselves to be ejected from their home at a somewhat early date.

So quietly did the little Australian Waxbills slink off with their young, and so closely did they keep them in concealment, that it was not until the 31st of July, when I found myself within a foot of a startled youngster with his mother when I crept into the aviary to attend to the water, that I knew for certain that young had been reared. Since that day I have frequently seen the young flying about, and occasionally a little group of three on the ground clamouring round one fond parent, who continued to feed them long after they were capable of feeding themselves. On one occasion I think I saw four young birds, but am not sure. The immature Australian Waxbills may readily be distinguished from the adults by their black bills, the absence of the red brow stripe, and by their generally duller appearance. They are little dull birds with a tinge of olive above, lighter below, with just a little red in the region of the upper tail-coverts. But they are not uniform in the general shade of their body colouring, some being darker than others, presumably a sexual distinction.

Referring to the black bill and the absence of the red brow in the immature plumage, it is curious to observe what Dr. Russ

says (quoted by Dr. Butler at p. 151 of *Foreign Finches*):—“*Young plumage* dull earthy-grey, feebly tinted with olive-green; underbody dirty yellowish-grey, with grey-black tail above and below; only recognisable by the already existing soft red of the superciliary stripe and croup. *The change of colour* I do not know as the young always died before it.” Mr. Campbell (p. 491) is more satisfactory:—“The bill is black in youthful birds up to the age of three months, or the first moult, and the red eyebrows. . . . are not donned until the same age.” My young birds have not any visible red on bill or brow, and they are now often plainly to be seen, for, like many young birds that have never been handled or frightened, they are very tame, and come freely to the front of the aviary. Occasionally they may be seen busily hunting amongst the foliage for insect life; in wet weather, too, if not cold, they sport amongst the wet leaves with great delight. The parents have almost disappeared, so probably are nesting again.

So far as I have been able to see, for I may not yet inspect the nests, the first nest is of ordinary size, while the second is a very large long structure. Here again I cannot do better than quote Mr. Campbell:—“*Nest*: Bulky, bottle-shaped, with a side entrance through the neck; constructed of grasses generally gathered green; lined inside with fine grasses and feathers; usually situated in the upright forked branches of thick bush or small tree, often near a stream. Dimensions about 12 inches in length by a girth in thickest part of 18 to 20 inches. *Eggs*: Clutch, usually five or six; lengthened or pointed oval in shape; texture of shell close and fine; surface slightly glossy; colour pure white.”

I think I have nothing special to add respecting these birds. Perhaps the frequent feeding of the fully fledged young on the ground is a little unusual. But there was just one little domestic incident which struck me as somewhat out of the common. On the 19th of June the male flew on to a high thin perch with a feather, nearly as large as himself, in his bill. He was at once joined by the female, and pairing, presumably unsuccessful, followed. The pairing was repeated, and the two birds dropped into the shrubbery and disappeared. From first to last, during the whole time they remained in sight, the male *retained the feather in his bill*.

I have been invited by one of my colleagues to suggest a Medal (of course under the usual restrictions) for breeding the Australian Waxbill. At first I was disposed to decline the kind

offer, as there seemed to be a possibility that it may have been previously bred, although such an event remains unrecorded as far as we know, notwithstanding that it does seem to be such an easy species to breed. On the other hand, aviculturists have had their eye on it for such a number of years that any instance of its successful breeding would hardly have been passed over unnoticed. And when I observe how many aviculturists of the first water have not been successful, it slowly dawns upon me that my little black-billed friends are quite worthy of so great an honour, and introduce them to the Members of the Avicultural Society accordingly.

[On August 29 I again saw the male retaining a large feather in his bill under the circumstances already related. On August 31st I first noticed one young bird shewing red on the brow, and from that day the red tinge on bill and brow has been steadily becoming more apparent on all of them. To-day, September 10, I saw the group of three little ones together, all apparently in perfect health and condition, and all slowly coming into colour.—R. P.]

THE BRAZILIAN HANG-NEST.

Icterus jamacaii.

By A. G. BUTLER, Ph.D.

Up to 1897 I always longed to possess a specimen of this American Starling; but, though I saw one or two in the shops of various dealers, they were either too high-priced, or had some defect. Mr. Abrahams once showed me a beauty, which would come out of its cage and take a mealworm from his hand; but he wanted two pounds for it, and that was more than I cared to give for so common a bird. Some years later I saw a nice-looking specimen in Mr. Maschke's shop, and, as he asked a pound for it, I was tempted to buy it; until I noticed that it had, apparently, been pinioned. It may have been all right, but I was not inclined to risk it.

In 1897 my friend Mr. Housden brought me a specimen, somewhat ragged in plumage and a good deal pecked about the head. It was cheaper than Maschke's bird, but a much more risky venture; nevertheless, I had waited so long that I was tempted to try my luck; and, on the thirteenth day after I bought it, the bird died.

No more specimens came my way for two years: then Mr. Housden again assisted me, and this time brought me a really good specimen, but little damaged in plumage and in good health, and asked me if I cared to have it: the price was even lower than that asked for my previous venture; therefore it may

be taken for granted that I did not hesitate. I have the bird still, in splendid health and plumage. It is probable that the Brazilian Hang-nest is chiefly imported from Pernambuco.

According to Burmeister, it frequents the woods in the interior of Brazil, but not to the south or east. It is seen singly or in pairs, revealing itself by its many-toned and variable voice : it feeds largely upon insects and their grubs which it chiefly seeks for on the ground, but it also feeds upon various fruits.

This Hang-nest first reached the London Zoological Gardens in 1860, and those of Amsterdam in 1885 ; but up to the present time it appears not to have been bred in captivity. Dr. Russ had four specimens which, he says, agreed perfectly all the winter ; but, at the approach of spring, had to be separated. Although most tame and confiding towards their owner, they appear to be quarrelsome with other birds, and therefore are usually kept separately.

The brilliant colouring of this bird, in which jet black contrasts with two shades of cadmium yellow ; the wing being ornamented with a broad belt of snow-white, would alone render it attractive as a pet ; but its bright pale amber eye, the singular elongate pear-shaped ashy-grey naked patch enclosing it, and the still paler ashy patch at the base of the lower mandible render it even more pleasing : then the cool impudence and cleverness of this bird, which will, at all times, attack its master, if his hand approaches too near ; and will discover a way of opening any simple fastening to its cage ; the strange attitude assumed when singing its loud ringing song, and its marvellous tameness, all render the Brazilian Hang-nest one of the most fascinating of cage-birds.

My present bird has now been in my possession for more than three years, and has never had a day's illness. Twice he opened the fastening of his cage and escaped into my conservatory where he kept me busy, on each occasion, for quite twenty minutes before I succeeded in netting him : yet the chase and final capture did not appear to have any effect upon his spirits, nor did they render him one whit less tame. After the second escapade I put a second fastening on his door, and took care that it should be out of the reach of his long bill ; but I always have to watch him when I change his food and water, or he would fly down and slip past my hand without hesitation. If Hang-nests were not so mischievous they would make charming house-pets. I do not think they would either attempt or wish to desert their owner, but they would certainly destroy lace curtains or woollen

work whenever they came across it, by piercing it with their bills and then opening their mouths wide. Mrs. Olive Thorne Miller noticed this mischievous habit in the case of her Baltimore Oriole, and I note that my Hang-nest divides all his food up by the same method.

When the Brazilian Hang-nest is going to sing, he stands high on his feet, throws back his head, points his bill straight upwards and raises the feathers on his throat; then he begins to make a regular clicking sound in his throat, or sometimes a prolonged rattling sort of guttural note: then, clearly whistled, comes the sound of *Hookaree, hookaree*, repeated from two to perhaps five or six times, followed by clear resonant notes somewhat reminding one of the Virginian Cardinal's song, the same note being repeated perhaps eight or ten times, then varied to a lower tone and again repeated. It ends quite abruptly and the bird may not be heard again all day, or it may be heard at intervals of perhaps half-an-hour throughout the day. To hear this bird in its native forest would be very exhilarating.

My bird has been the cause of my smashing several food-saucers: it is startling, when lifting up a fresh-filled saucer of food, to feel a sudden dig from a sharp bill on the knuckle of your thumb: one cannot always bear in mind the length of that bill, or the rapidity with which it can be brought into play. I feed upon my usual mixture and fruit, with occasional insects.

NESTING OF THE WHITE-WINGED ZENAIDA DOVE.

Mclopelia leucoptera.

By ROSIE ALDERSON.

I.

I purchased a pair of White-winged Doves for 15/- in 1901. The birds were newly imported, and were in good condition when sent to me. Unfortunately the poor cock injured his head very badly on the journey. The crown was covered with dried blood; and one side of the bird's face was quite pushed in, though the eye itself was uninjured. It gave the bird a most curious appearance, as if the face were quite on one side. It is not a bad plan to tack a piece of cotton wool (leaving, of course, the foundation outside and the edges turned in) to the top of the inside of the travelling cage when sending Doves by rail, as it prevents them injuring their heads by striking upwards.

With care and attention the cock quite recovered ; he is a good deal larger than the hen, and the sheen on his neck is much brighter.

The White-winged Dove comes from America and the West Indies. In colour it is a soft drab, and whitish on the under parts. The long quill feathers in the wings are dark brownish black ; and when the wing is in repose there is a very decided broad white band down it, from which the Dove evidently derives its name. The feet are bright crimson. On the neck there is a lovely purple and gold sheen, very beautiful when seen in the sunlight. Below the ear is a small slanting black mark. The eyes are bright orange and surrounded by a sky blue skin which adds greatly to the beauty of the bird.

In the aviary where I have my White-winged are also a pair of Shamahs and a pair each of Necklace, Senegal and Bleeding Heart Doves. The size of the aviary is 16ft. by 6ft. 6in. All these Doves have reared young ones this season, though they took a little time to each settle in their particular corner. I think really three pairs of Doves would be quite enough in an aviary of this size, as when the young birds leave the nest the place becomes rather full.

About the middle of May, the White-winged began to nest. They sat well for some time, then forsook the nest, apparently for no reason ; both eggs were fertile. A second nest met with the same fate ; and I began to think the birds would do no good, for they seemed to tire of sitting some time before the eggs were due to hatch. During this time the cock began to get very aggressive towards the other doves. He never really harmed any of them, but used to chase them about. Towards the end of June a third nest was made, and this time the birds sat very well. On July 9th I found an empty egg shell on the aviary floor, and a few days later a pair of fine young ones could be seen quite plainly. They were very pretty little creatures, soft drab with brown eyes ; and the white in the tail, and the band on the wings was *very* decided. By July 22nd, the first young one came out of the nest. It was now about a fortnight old, and between 7 and 8 inches in length, and very long and slender for its width. Both this young one and the second (which appeared a day or two later) seemed rather weak in the feet. It is a great help to young birds *just out of the nest* to put a shallow wooden box, without a lid, partially filled with hay, on the floor. The young bird may not stay *in* the box, but it will be very happy sitting on the edge ; and after the warm nest

this is much better than being on the cold floor. Young Doves do not seem to understand a branch placed for them on the ground to perch on, and in this case the nest was 12ft. or more from the floor, so they could not fly back to it. By August 1st, both birds stayed out of the nest altogether (we had once or twice put them back at night), and by now they are nearly as long as the hen, but more slender. Both young birds are growing very fast. They are drab like the parents, but rather darker, and with no blue skin round the eyes, nor sheen on the neck. The feet are pale flesh colour, the beak pale pinkish, and the eyes dark brown. The feathers round the eyes are whitish, with a wash of pale chestnut below the eye, merging on to the throat. In one young bird I can just see the dark mark coming below the eye. The rest of the colouring is just like the old birds. I have never seen the latter feed the young ones; they seem to leave them quite to themselves. A fourth nest has been started, and the Doves are sitting well. I think it often happens in breeding foreign Doves that the birds do not settle down to sit really well until the 2nd or 3rd nest; at least this has been my own experience.

CORRESPONDENCE.

SICK GREY PARROT.

SIR,—Can you give me any advice as to the treatment of a Parrot, which has a most extraordinary growth all round its head? The latter is swollen greatly, and the bird is unable to close its mouth.

It is a common Grey Parrot, but it is rapidly becoming quite black, and has a sort of shiny appearance all over its feathers such as one notices on the feathers of a Rook. The growth over the eyes resembles that of a Carrier Pigeon; but there is a growth of flesh all round each eye, and one is nearly closed. The illness has been coming on for about three months, I believe, but am not sure. The bird is a most distressing sight, and I think the kindest thing would be to destroy it; but it is not mine, and is a great favourite with its owner. The growth to me looks like cancer, if a bird can have such a disease. The bird has been kept on mixed seed, but lately has been given bread and milk as well.

MARY KEENE.

The following reply was sent to Mrs. Keene:

From your account of the bird I should say the disease is either scrofula or cancer, to which latter complaint Parrots are very subject. I do not think there is the least probability of its recovery, and were it mine I should decidedly chloroform it and put it out of its misery. The local chemist would no doubt administer the chloroform.

W. T. GREENE.

A PROLIFIC CALIFORNIAN QUAIL.

SIR,—Having kept and reared many of these handsome birds during the last few years I found the number of eggs laid per nest to vary from 12 to 30.

I only have one pair this year. The cock is an old bird (the first foreign bird I had, and was given to me by a friend to start me in this hobby) the hen is a last year's bird.

She has laid sixty-seven eggs, one being deposited each day without intermission. I have sixty in an incubator, two were left in her nest, one was laid and broken in the basket on arrival here (so in all probability this was not the first she had laid) and four have been laid about the aviary and broken.

I think this should be a record number. There can be no mistake as I have only the one hen.

ARTHUR GILL.

DISEASED BEAKS; MEDICINES FOR BIRDS.

SIR,—In the March and April numbers some correspondence appeared about a contagious cheesy growth which forms at the base of the mandibles in Gouldian-finches. In my experience this disease is not confined to Gouldians, but it may attack other birds who may happen to be lodged in the same cage or aviary as the Gouldians. If taken in time, the disease is certainly curable. The growth should first be saturated with a four per cent. solution of cocaine and then scraped with a blunt knife; hot or very cold water will soon stop any bleeding, and then the affected parts should be well dusted with equal parts of powdered boracic and iodoform. For a few days after this, the beaks should be bathed twice daily with boracic lotion, and the powdered application repeated. It might also be necessary to repeat the scraping operation if the growth has not been effectually removed the first time. Any respectable chemist will supply the medicinal preparations required.

CHEMICAL FOOD.—There are many, no doubt, who, like myself, have with advantage used this preparation in their aviaries during the moulting season or when any of the birds have appeared out of condition. Lately, I have been using instead Allen and Hanbury's "Byno-Phosphates" (one teaspoonful mixed with a gill of water). The birds like this combination better (being really a malted chemical food), and besides, it has not the constipating effects on the bowels like the older preparation.

JAS. GEO. MYLAN.

BLUE MOUNTAIN LORIKEETS.

SIR,—I note some correspondence on the feeding of this species. Perhaps I may claim to have been as successful as most people in keeping one of these birds in health.

One of my sons brought a hen home from Sydney seven or eight years ago, and she is still alive and well. She is fed on both hard and soft food, and has always a supply of canary seed, but does not care for any other kind. Every day we give her either bread-and-milk or milk pudding with plenty of sugar; and two or three times a week she has a bit of lettuce or groundsel; we give her, moreover, an unlimited supply of water, both for drinking and bathing.

She is the tamest bird I ever had, and will allow me to pull her about and roll her on the table; she makes a kind of warbling noise of satisfaction all the time.

Every summer she has laid two or three eggs. Before laying she gets uneasy and seedy, and we give her a teaspoonful of brandy in a tablespoonful of water. This she drinks greedily, and next morning there is an egg at the bottom of the cage.

T. B. WHYTEHEAD.

TOUCANS.

SIR,—Will you please let me know the following:—

Can Toucans be kept in an outdoor aviary? How many pairs could be accommodated in an aviary—run 15ft. by 12ft., house 12ft. by 9ft.? How are they fed? What different kinds could be kept together? Would they be likely to nest and what should be provided for them?

C. CASTLE SLOANE.

The following reply was sent to Mr. Castle Sloane:

Many years ago I had an Ariel Toucan; and my personal knowledge of Toucans is limited to this one bird.

During the warm weather it was occasionally loosed in the garden aviary; but it was very aggressive, and was usually kept in the house. And often as I have seen Toucans I have never met with one in an outdoor aviary, neither have I ever heard of one being so kept in this country.

I can suppose that a well-seasoned bird, in a large well-protected aviary, might stand a good deal of outdoor aviary life, but do not think it at all likely that it could stand our winter and spring without artificial warmth. It is loosely feathered about the body, comes from the tropics, and I earnestly hope you will not make the experiment.

In the aviary you mention, two non-nesting pairs might be kept together, or even three; but they are active birds, and like plenty of space, and, although sociable, are not over amiable in confinement.

I am referring to the true Toucans (*Ramphastos*), which are large birds. The Aracaris are much smaller.

In a good sized place, *if kept warm enough*, I see no reason whatever why a pair should not breed, for they are not shy birds in captivity. I think they all nest in holes of trees; and the more natural the hollow tree-trunk you could manage to supply them with the more likely would they be to take to it.

Feed on fruits, vegetables, raisins cut up, boiled egg, and a little raw meat. Their food should be in lumps or pieces which they can readily pick up. For instance, bananas, boiled carrots, and the like should be cut up into lumps. I should also offer them mealworms and cockroaches. If they will take these, it might be better not to give meat. My Toucan would dart into the air as straight as a bullet at any small bird flying past within four or five feet. I am satisfied that they do not live only on fruit and berries. In our cold climate, too, they require something more substantial. The warmer they are kept, the less *meat* food they require. Young sparrows and mice are better for them than solid meat.

As regards species, I am not able to advise you. Although sociable, I do not know that different species associate or would live in peace together

within the limits of your aviary. The Toucans are not commonly imported, and generally *one has to take what one can get*.

The Ariel Toucan is not uncommon, and is a nice bird. The Toco Toucan is famous for its large bill. The Short-billed is a handsome bird and occasionally comes over. There are a great number of Toucans, but only a few come to England.

Maximilian's Aracari (pronounced Arasaree, with the accent on the final letter) comes over occasionally, and also the Lettered Aracari, and I think the Banded Aracari.

All these are much smaller birds.

REGINALD PHILLIPPS.

NESTING OF BURROWING OWLS.

SIR,—When I bought my Burrowing Owls last June, they had been kept in a small cage for over eight months, so that when I let them out into a good sized aviary their delight was very great, and they at once began to fly about, and make themselves quite at home.

I put in a large heap of sand, of which they took no notice; then a happy thought struck me. Knowing that in their own country they are fond of perching on telegraph posts, I had two very large pine stumps put into the aviary, one of which had a high flat top on which the Owls speedily perched themselves. These stumps undoubtedly gave them the idea of burrowing. Almost immediately they began to dig out the earth, with vigorous kicks, between the two stumps, choosing a sheltered part with branches overhanging. They dug for some hours every day, the male bird doing most of the work. The soil here is very sandy and light, and this made it easy for them.

On the 12th of June I saw one bird with a leaf in its mouth, so I at once threw in a handful of leaves and grass—but they did not touch them. Then I tried lumps of dried (harbour) seaweed; these the Owls seized upon at once and carried down the burrow, in beak and claws. Next day they made a second entrance under the stumps, and for a fortnight continued to carry down the seaweed, often quite large pieces at once, looking so excited and interested, and when below making queer suppressed noises which sounded wierdly up above.

Now the nest was evidently finished, and I was wondering if the hen had begun to lay, when unfortunately the weather turned very hot, and the Owls took their food down into the burrows, which was trying, as I dared not rake it out for fear of disturbing them; and indeed at this period they were so fierce, and so unlike their usual gentle tame disposition, that they would not have allowed me to interfere. So I was obliged to shut the Owls up, and commence a raid upon the burrows.

We moved away the stumps, and my husband dug down from two to three feet but could not find the nest, although he traced the burrows as far as he was able, until the sandy earth fell in and destroyed all clue as to where the nest might be. When the Owls were put back again they looked much distressed and disappointed, and next day began digging again under the one and only stump we had left. We filled up the hole, but they tried a second and a third time.

It seems very hard that they cannot be allowed to do what is natural to them, but I can only hope that somebody else will be less squeamish and more successful with them than I was.

OCTAVIA GREGORY.

WEAVERS.

SIR,—I have had a red Weaver for some years, which I always thought was a Madagascar Weaver until I saw, the other day in . . . that the Madagascar Weaver had a *white* beak, while my bird's beak is black. I have now obtained, I suppose, a true Madagascar Weaver, but I shall be obliged if you can inform me of the name of the red Weaver with a black beak. It is a very handsome bird. Can it be the Oryx Weaver? . . . says, in his book, that the Oryx Weaver has an orange beak, and he also says that the Madagascar Weaver's beak is white. I have also a black and yellow Weaver which I suppose is the Napoleon Weaver, and one that is orange and black, with a great ruff round its neck; and another is crushed-strawberry-colour with a beak of the same colour. I should be glad to know the names of all these.

MARY MILLER.

The following reply was sent to Lady Miller:

When out of colour, the beak of the Madagascar Weaver is horn brownish; but, when the bird is in its crimson livery, the beak is black. There can be little doubt that your first bird is a true Madagascar Weaver (*Foudia madagascariensis*) (d). If you have a red Weaver with a white beak, I do not know what it can be.

The Oryx or Grenadier Weaver (*Pyromelana oryx*) also has a black beak when in colour; but it is rather a fiery orange, than crimson bird.

Your black and yellow bird is probably the Napoleon Weaver (*P. afra*); the black and orange bird is doubtless the Orange Weaver (*P. franciscana*), and I should think the 'crushed strawberry' bird is Russ' Weaver (*Quelea russi*), a form of the Red-billed Weaver (*Q. quelea*) in which the black face-mask is undeveloped: the female of the latter has an orange beak.

A. G. BUTLER.

OWLS.

SIR,—I shall be grateful for information about Owls.

I had a pair of Brown Owls; one unfortunately got out and was killed by my fox terrier. Through a friend I procured another nestling, but it is a Long-eared Owl. I am anxious to know if they would agree if placed in the same enclosure.

What food should they eat? I catch mice occasionally, which they seize frantically; I also give them sheep's liver; they do not seem to care for anything else. I am afraid they will not keep in health unless their food is more varied.

M. HUSBAND.

The following reply was sent to Miss Husband:

You do not state the size of the enclosure in which you keep your Owls. If large enough, the two birds will probably do very well together, at any rate until the spring, especially as they are young—at least so I understand from your letter. I have myself kept (single birds) a Brown, a White, a Long-eared and a Short-eared Owl together, and they did not

quarrel; but their aviary was large, with plenty of secluded nooks, so that each Owl could select its own home without any bad feeling being aroused.

But you must be judicious when feeding them. If you should have one mouse, and toss it down to the Long-eared Owl, the Brown Owl (if a good specimen) would at once dart down, and a battle might be expected. Cut the mouse in halves, toss a half to each, helping the most savage of the two birds first.

Remember that both these Owls are nocturnal, and should have dark corners in which to pass the day. Fix up a stout perch in every dark corner; a natural bough with the bark on is best, with all small side boughs removed; the higher it is fixed up the better. They should be fed towards evening, and remains of food should be removed in the morning.

Feed on mice (field mice or voles from preference, but house mice will do very well), rats, birds, baby rabbits,—almost any small creature including beetles, etc. When these fail, buy a rabbit and cut it up, giving the *skin* and *fur* as well as the meat. Also get fowls' heads, necks, etc., from the poulterer. When these fail, you must fall back upon raw meat in some form or another. But you must bear in mind that they *must* have fur or feather, which eventually they will eject in the form of castings. If you neglect this, not only will their health decline, but one, impelled by an irresistible craving, might even hurl itself upon the other for the sake of the "feather." If the worst comes to the worst, roll up small pieces of raw meat in fine feathers of any kind, and place in their house.

If they leave much food until the morning, or seem to be getting fat and lazy from over-eating, cut the supply a little short. Experienced persons tell us to starve them one day a week. Personally I have never gone quite so far as that—but perhaps I am wrong.

Supply fresh, clean water every evening, both for drinking and bathing purposes. If they should seem at all disposed to be quarrelsome, give a separate bathing pan to each bird.

REGINALD PHILLIPPS.

THE AGE OF BIRDS.

SIR,—The age of birds, especially in a wild state, is a matter about which little or no reliable evidence can be found, so that I think the following note from *Country Life* worth inserting in the Magazine.

"Sir,—Your correspondent may be interested in the story of a Robin that built in Bristol Cathedral for fifteen years. It usually perched on one of the pinnacles of the great organ during divine service, and would occasionally accompany the solemn strains of the music with its clear, trilling voice. It was so tame as to follow the verger to be fed. It died during the severe winter of 1889, and the minor canon of the cathedral, Mr. Samuel Love, composed a poem on it, a copy of which I have.—B. A."

There is no positive proof that through the fifteen years it was the same individual, but as it became tame enough to follow the verger there is great presumptive evidence that it was, as a fresh bird would have required coaxing, which could not fail to have been noticed.

Of course the idea with which the note was originally written, although very interesting as a subject, does not have much point in the present instance. The pinnacle of the organ was probably chosen as being the most convenient perch when the church was full of people, and the 'accompanying of the strains of music' is a common occurrence with most birds, which love to sing when a noise, not necessarily musical, is made.

Nevertheless some interesting results might accrue if some of our members would try the effect of certain notes on their various birds. I fancy a violin would be the best instrument to play on, and I would suggest playing out of sight of the bird, at the back of the cage, and watching its motions by means of a mirror.

J. LEWIS BONHOTE.

YOUNG GOULDIAN; RUFOUS-TAILED FINCHES.

SIR,—Referring to your enquiry *re* "Young birds feeding other young of the same brood," as already recorded, two broods of Gouldians were reared in my out-door aviary last year from one pair. The first brood of four helped their parents rear the second—six in number; and a very pleasing sight it was to see one of the elder absorbed watching a parent feed one of the younger. Off would pop the parent, up would sidle the youngster and repeat the performance it had so intently watched, much to the gratification of its younger relative. Whether the feeders were confined to the first brood or assisted by the more robust members of the second I cannot say, as I did not regard the incident as being anything remarkable. The young branchers did not appear able to distinguish their parents from the other adult Goulds. At all events, they never lost an opportunity of beseeching to be fed by them. Their appeals, however, were always ignored.

I may be allowed to state for the information of interested members that young males of this species begin in earnest to assume adult plumage when fourteen months old. I say in earnest, because as far back as Dec. small ticks of adult colour were observable on some of them. The young hens still retained the modest garb of the nestling, although they were undergoing treatment for egg-binding when eleven months old. In support of my observations in the matter of colour I will quote what a lady member wrote to me on the 15th of August: "Baby Gouldian is a beauty, day by day he becomes brighter, and is in perfect health. I never saw such a cheery little fellow, he sings from morning till night. His back is quite green, and the mauve feathers are coming in his breast, the black on the head has not appeared as yet."

The weather this year has been all against successful nesting operations, but, as I write, a fine brood of Rufous-tails are being reared by their parents in a cage indoors. Should they reach maturity I suppose it may be considered going one better than having done the same thing in an out-door aviary last year. At an early date I must send you for publication a very necessary warning *re* this species, when the feeling of propagating their kind is on them.

ALF. E. NICHOLSON.

A LAME CRANE.

SIR,—My young Demoiselle Crane has been most unsatisfactory, always lame as if from a strain. It can walk only very slowly, and never flies or dances like the other; and lately I have noticed a corn or something on the foot. It very seldom stands, but either rests on its "elbows" or lies down; but it eats well, and is lively in hunting for insects. If we could do anything it would be a great comfort, as the poor bird would enjoy life so much more.

OCTAVIA GREGORY.

The following reply was sent to Mrs. Gregory.

The Demoiselle Crane should be caught up, and the lame foot examined. If it is a corn, I should think a mild application of nitrate of

silver could do no harm ; and I should keep the bird on grass ; or, if that be impossible, on peat moss litter frequently sprinkled with water (at any rate not on sand). If the toe be swelled, and no thickening of the skin noticeable, I should fear that it may be due to some constitutional weakness (akin to gout), such as some Pheasants and the northern Falcons (Iceland and Greenland) are so liable to, and which is much more difficult to treat. If any matter (pus) be suspected, and the swelling be ripe for opening, a sharp clean lancet should be used, and the bird *must* be kept on clean ground, or grass if possible.

W. H. ST. QUINTIN.

IMPROVEMENTS IN THE MAGAZINE.

SIR,—At the meeting of the Council on July 4th, it was agreed that the front of the cover of the monthly Magazine should be rendered more attractive and suitable by the addition of a line drawing of a bird, the whole design to be executed by some well-known artist.

For my part I am perfectly satisfied with the plain, suitable green paper covering of the Magazine that we have hitherto had ; it answers admirably for the purpose for which it is intended, namely, to preserve the interior of the Magazine.

I, possibly as some of the other members do, keep all my Magazines in their original published state. Members who wish to have their Magazines bound are able to obtain covers and get them bound at the publishers for a small sum.

I think that it would be far better if the money, that is intended to be spent for outward show and decoration of the cover of the Magazine, was spent in improving the interior by giving an extra coloured plate or a good engraving of some bird, on which articles are written from time to time in the Magazine, or of the rarer birds that some of our wealthy members possess, who, I am sure, would willingly help to make the Magazine more one of useful knowledge and information rather than one of outward decoration. Certainly some of the Magazines of the present day have artistic and decorative covers, but these Magazines are for the millions. Professor Herkomer's "Magazine of Art," of 1880, had a lovely "wood-cut" cover.

An extra coloured plate or an engraving would be preserved, and not get roughened or dirty as would an engraving on the cover of the Magazine.

In the case of those members who have their Magazines bound the cover would go the way of all covers, namely, to the waste-paper basket.

I am very pleased to see the new rules brought out by the Council, and wish the Magazine every success which it deserves. E. G. SALT.

[We are sorry that Dr. Salt does not approve of the decision of the Council, to render the cover, as well as the interior of the Magazine, more attractive than heretofore. It is, however, too late now to make any change in what the Council have decided upon, even if it were desirable to do so, and we have little doubt that when the first number of Vol. IX. appears next month, the majority, at any rate, of our members will be well pleased. We would remind Dr. Salt that no less than seven coloured plates have been given with the present volume, besides numerous black and white plates, so we think there can be little to complain of in the way of illustrations.—E.D.]

THE SOCIETY'S MEDAL.

The Society's Medal has been awarded to Mrs. Johstone, for having bred the Barnard's Parrakeet, *Barnardius barnardi*, and to Mrs. Howard Williams, for having bred the Ringed Finch, *Stictoptera annulosa*, it is believed for the first time in the United Kingdom in each case.

Miss R. Alderson has succeeded in breeding the White-winged Zenaida Dove, *Melopelia leucoptera*, as already announced.

The Rev. C. D. Farrar has succeeded in breeding the American Cat-bird, *Galeoscoptes carolinensis*. Members must be careful not to confuse this species with the famous Australian Cat-birds (*Elurædus*), which are closely related to the Bower-birds.

Mr. Phillipps has succeeded in breeding the Australian (Sydney) Waxbill, *Egitha temporalis*, and the Australian Blue Wren, *Malurus cyaneus*.

Articles on the breeding of all these species have now been published. A further account of the Blue Wren will appear in November.

The Society proposes to award a Medal, in each case, for the breeding of the several species it is believed for the first time in the United Kingdom. If any previous instance should be known to any of our members or readers, it is requested that they will be so good as to communicate at once with the Honorary Secretary.

NEW MEDAL RULE.

"The parents of the young must be the *bonâ fide* property of the breeder. Any evasion of this rule, in any form whatever, will not only disqualify the breeder from any claim to a Medal in that particular instance, but will seriously prejudice any other claims he or she may subsequently advance for the breeding of the same or other species.

"In every case the decision of the Committee shall be final."

SPECIAL NOTICES.

THE PRICE OF THE SOCIETY'S MAGAZINE.

It has been found during the year that, when the Society issues what may be called a Popular Number of the Magazine, it is freely purchased by the public, other less attractive numbers being disregarded.

The result is a serious loss to the Society, as not only are the less saleable numbers left on hand, but a large number of complete sets of twelve are broken up and rendered almost valueless.

In order to protect the Society, it has been decided to increase the price of each monthly number from 1/- to 1/6, commencing with our next issue.

Members of the Society who shall have paid their subscriptions will, of course, continue to receive one copy of each number free, as in the past.

MEMBERS' ADVERTISEMENTS.

Members are reminded (see p. 240) that the new rate of four words a penny comes into operation from this date. Every word, including the name and address of the advertiser, must be paid for.

POST MORTEM EXAMINATIONS.

For rules see previous numbers.

ALL-GREEN PARRAKEET. (Dr. W. G. Creswell). Died a week after purchase. [Congestion of lungs was cause of death. It was a cock].

YOUNG VIRGINIAN NIGHTINGALE. (Honble. M. C. Hawke). [Your bird died of starvation, no doubt owing to neglect of parents].

SISKIN. (Honble. M. C. Hawke). [Extensive contusions about head and right side of body, from external violence, causing severe shock which proved fatal].

RED-THROATED WHYDAH. (Mrs. Noble). It has had a good many fits lately, and did not moult properly. [Your bird has, no doubt, been suffering from fits caused by reflex nerve irritation from indigestion and malassimilation of its food. The fatal fit was apoplectic: there being a large blood clot on the brain].

GOLDEN-FRONTED BULBUL. (Lady Carnegie). Caged with another, they used to fight occasionally. [Bird died of enteritis; no sign of external violence. It was a hen].

SWAINSON'S LORIKEET. (Mr. A. A. Pearson). In apparently the soundest of health at 9 a.m.; fell off the perch at 11 a.m., and died in half an hour. [Death was due to apoplexy. Your feeding was good, but probably want of exercise caused the fatal attack].

VIRGINIAN NIGHTINGALE. (Miss B. Shepherd). Hatched in my aviary last year; perfectly well over night; in the morning was puffy and very weak, and soon died. [Death was due to acute inflammation of the bowels].

LONG-TAILED GRASSFINCH. (Mr. Mathias). One of a pair that had been sitting on eggs some days. [Died of acute congestion of the lungs].

CHESTNUT FINCH. (Mr. A. Cummings). Purchased a fortnight ago. [Death was due to apoplexy].

BUDGERIGARS, cock and hen. (Mr. C. P. Arthur). [Cock died of acute inflammation of the bowels, hen of congestion of liver and lungs.]

CORDON BLEU. (Mr. A. E. Boothroyd). [Apoplexy was the cause of death].

RED-CRESTED CARDINAL. (Rev. T. C. Lewis). [Died of intestinal tuberculosis].

BUDGERIGAR. (Mr. A. J. Salter). [Your bird died of apoplexy—a very common disease amongst aviary-bred specimens].

ORANGE-CHEEKED WAXBILL. (Mr. H. L. Sich). Died six days after purchase. [Acute congestion of liver, and jaundice, caused death. Am afraid you treated too generously].

ZEBRA FINCH, hen. (Mr. Rycroft). [Concussion of brain, caused by external injury].

COCKATIEL. (Mrs. Noble). Taken ill on 12th Sept., sitting with head under wing; died on 14th Sept.; slight discharge from nostrils. [Acute pneumonia was the cause of death].

ARTHUR GILL.

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VOL. VIII.—No. 1.

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NOVEMBER, 1901.

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LONDON :

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THE AVICULTURAL SOCIETY.



NOTICES TO MEMBERS.

NOTE.—The attention of members and others is directed to the price of bound Volumes and back numbers of the Magazine, which has been considerably reduced.

The Subscription to the Avicultural Society is 10/- per annum, due on the 1st of November in each year, and should be sent to the Hon. Secretary, Mr. R. PHILLIPPS. The entrance fee is 2/6. The "Avicultural Magazine" is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year.

Note change of Secretary and Editor.

All communications should be addressed to the Honorary Secretary, REGINALD PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W; *except MSS. and correspondence for the Magazine*, which should be sent to the Editor, D. SETH-SMITH, Glengarry, Canning Road, Croydon. All letters must contain a stamped envelope for reply. Any change of address should be at once communicated to the Secretary.

Advice is given, *by post*, by members of the Council to members of the Society upon all avicultural subjects. All queries are to be sent to the Hon. Secretary, to be by him forwarded to the members of the Council who will answer them.

The Magazine is published by Mr. R. H. PORTER, of 7, Princes Street, Cavendish Square, W., and is dispatched by him monthly to the members. Orders for extra copies, back numbers, and bound volumes (accompanied by a remittance) should be addressed to the Publisher.

Cases for binding Vol. VII. can now be obtained from Mr. R. H. PORTER, 7, Princes Street, Cavendish Square, W., price 1/3 each. They will be forwarded on receipt of cash with order, post free and carefully packed. Mr. PORTER is prepared to undertake the binding of the Magazine for 1/-, plus cost of case and postage.

N. B.—Receipts are sent to each member on receipt of their subscription. Would members, therefore, who do not receive the receipt within reasonable time after posting their subscription, communicate with the Secretary without delay.

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THE COUNCIL.

Mr. ST. QUINTIN has accepted the post of Hon. Treasurer, and becomes a member *ex officio*. Mr. BONNOTE has been appointed to the seat thus vacated. Also Mr. FULLJAMES has resigned, and his place has been filled by Mr. HOUSDEN.

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R. H. PORTER, 7, PRINCES ST., CAVENDISH SQUARE, W.

THE AVICULTURAL SOCIETY.



NOTICES TO MEMBERS.

SPECIAL.—Notwithstanding the Notices that have been given, a few members were forwarding their subscriptions, and making their cheques and orders payable to, Mr. Bonhote up to the last moment before he left this country for the Bahamas, thus quite needlessly causing annoyance, correspondence, and labour.

All subscriptions (and all advertisements and correspondence except MSS. for the Magazine) should be forwarded to the Honorary Secretary, Mr. R. PHILLIPPS, 26, Cromwell Grove, West Kensington Park, London, W., by whom they will be acknowledged immediately.

Members who have not yet sent their subscriptions to Mr. PHILLIPPS are reminded that they are now due.

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" V.	"	8 6	"	10 6.
" VI.	"	8/6	"	10 6.
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NEW MEMBERS.

Professor ALFRED NEWTON, M.A., F.R.S., F.Z.S., Magdalene College, Cambridge.

Mr. ERNEST W. LITTLE, 21, Blandford Street, W.

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JANUARY, 1902.

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Cases for binding Vol. VII. can now be obtained, post free and carefully packed, for 1/3 each, from the Publisher, who also undertakes the binding of the Magazine for 1/-, plus cost of case and postage.

Special Notice.—We are reminded by our Publisher that the stock of back volumes of our Magazine is very low. Members, therefore, who wish to make up their sets, should do so without delay.

The Publisher will purchase complete copies of Vol. I. Also he will give 2/- each for clean copies of Nos. 2 and 4 of Vol. I., and 1/- each for No. 7 of Vol. I. and No. 28 of Vol. III.

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CHANGE OF ADDRESS.

Mrs. CARLYON, Brockenhurst, Hants.

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THE AVICULTURAL SOCIETY.



NOTICES TO MEMBERS.

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(Owing to the increased demand for back volumes it has been found necessary to raise the price of Vol. II. as shewn).

(Continued on page iii. of cover).

III.

(Continued from page ii. of cover).

NOTICE TO NON-MEMBERS.

All persons wishing to join the AVICULTURAL SOCIETY are requested to communicate with the Hon. Secretary.

THE SOCIETY'S MEDAL.

A Medal has been awarded to Mr. MEADE-WALDO, for having bred the Scops Owl, in 1899.

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Miss NORMAN, Royal Hospital, Chelsea.
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Miss MARGERY ST. QUINTIN, Scampston Hall, Rillington, York.
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The Baroness Le Clément de TAINTEGNIES, Cleveland, Minehead.

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Mr. PEKCY W. THORNILEY, Shooter's Hill, Wem.

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Proposed by Mr. SETH-SMITH.

Mr. WALTER G PERCIVAL, Somerset Court, Brent Knoll, Somerset.

Proposed by the Rev. F. L. BLATHWAYT.

(Continued on opposite page).

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 Mr. WALTER BURTON, Mooresfort, East Sheen, S.W.
 Mr. G. C. PORTER, 38, Mill Street, Bedford.
 Mrs. GREGORY, Melville, Parkstone, Dorset.
 Dr. W. T. GREENE, 282, Portobello Road, North Kensington, W.
 Dr. JAMES GEORGE MYLAN, Carlisle House, Grimesthorpe, Sheffield.
 Mr. CHARLES THORPE, Selborne, Chatsworth Road, Croydon.
 Lady SUTTON, Benham Park, Newbury.

CANDIDATES FOR ELECTION.

- Mr. MARK R. RYCROFT, 8, Park Street, Wakefield.
Proposed by the Rev. C. D. FARRAR.
 Miss M. S. LATTEY, Hollydene, Allensbank Road, Cardiff; *and—*
 Mr. WILLIAM H. FOSTER, 164, Portland Street, Southport; *and—*
 Miss NORMAN, Royal Hospital, Chelsea.
Proposed by Mr. PHILLIPPS.
 Rev. T. C. LEWIS, Dodbrook Rectory, Kingsbridge, Devon.
Proposed by Mr. MATHIAS.
 Miss GODDARD, Westrop House, Highworth, Wilts.
Proposed by Lady MILLER.
 Mr. F. C. THORPE, Dronfield, Sheffield.
Proposed by Miss R. ALDERSON.
 Miss MILDRED E. PARSONS, Birdsall Grange, York; *and—*
 Miss MARGERY ST. QUINTIN, Scampston Hall, Rillington, York.
Proposed by Mr. ST. QUINTIN.
 Rev. FRANCIS LINLEY BLATHWAYT, 173, Monk's Road, Lincoln.
Proposed by Miss WEST.
 Mr. O. V. APLIN, F.L.S., M.B.O.U., Bloxham, Oxon.
Proposed by Mr. SETH-SMITH.
 Mr. D. BELL, Cawthorne, Barnsley.
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- Best ants' eggs procurable, perfectly clean, 3/- lb., postage extra. Meal-worms, all large, 500 for 1/6, 1,000 for 2/6, post free—Cash with order.
 Good full-coloured cock Goldfinch, 3/-; ditto Bullfinch, 2/6;
 Tovi Parrakeets, 6/- each, 10/- pair; cock Pileated Finch, perfect plumage, 7/6; Scarlet Tanager, twice cage-moulted, 25/-; good healthy young Grey Parrot, 25/-; also one, a splendid talker, three years old, 100/-; hen King Parrakeet, 30/-; cock Cockatiel, fine adult aviary-bred bird, 7/-.
 C. P. ARTHUR, Melksham.

(Continued on opposite page).

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Proposed by Mr. GILL.
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- Dr. JAMES GEORGE MYLAN, Carlisle House, Grimsthorpe, Sheffield.
Proposed by Mr. ALFRED E. NICHOLSON.
- Mr. CHARLES THORPE, Selborne, Chatsworth Road, Croydon.
Proposed by Mr. SETH-SMITH.
- Lady SUTTON, Benham Park, Newbury.
Proposed by the Rev. HUBERT D. ASTLEY.
- Mrs. GARDNER, Heathfield, Basset.
Proposed by the Rev. C. D. FARRAR.

CORRECTIONS AND CHANGES OF ADDRESS.

- The Hon. KATHERINE HAMMOND, 25, Eaton Place, S.W.
- Mr. GEORGE D. GLASSCOE, 45, Gaywood Road, Walthamstow, Essex.
- Mr. ALFRED CRAFER, 6, Laburnum Road, Epsom.

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Cock Californian Quails (outdoor aviary bred) 6/6 each. Would exchange for Parrakeets or Conures.

Miss R. ALDERSON, Park House, Worksop, Notts.

Grand cock Shâmas in song, 35/-; fine hen Shâmas, 40/-; pair grand tame pet Orange-flanked Parrakeets, perfect, 40/-; adult Cockatiels, pairs, 12/6; adult Budgerigars, 7/6; husks, 4/6 doz.; pair Pagoda Starlings, 15/-; Rosy Pastor, 5/-; Javan Parrakeet, adult, 10/-; Ariel Toucan, 45/-; Amazon Parrots, 30/-, 40/-, 70/-, all talk; young Green-billed Toucans, pair, 45/- each; pair Grand Malabar Honey-suckers or Green Bulbuls, 80/-; Black Tanager, 15/-; Red-head Gouldian Finch, 17/6; hen Zebras, 2/6; pair Avadavats, 2/6; Virginian Nightingale, 12/6; Oryx Bishops, rare, in colour, 25/-; rare Brown-head Indian Weaver, 10/-; pair Rufous-tailed Waxbills, 40/-; pair Pekin Robins, 7/6.

British Chough, winner, 70/-; tame Jay, 15/-; Missel Thrush, tame, perch on finger, 10/-; grand Song Thrush, 7/6; fine Shore Lark, 7/6; large Redstart, 15/6; grand Blackbird, 10/-; fine Linnet, 7/6; Goldfinch, breeder, 20/-; tame Hawfinch, 20/-; 1 doz. sex-mixed Canaries, 30/-, in aviary.

Book on British Birds, large, bound, new, plates by Frohawk, 90/-; 2 vols. 5th series, *Ibis*, coloured plates, new, 30/-; 2 vols. *Parrots in Captivity*, coloured plates, new, 12/6; Wright's Poultry Book, perfect, coloured plates, 18/-.—OSBALDESTON, St. John Street, Preston.

(Continued on page iv. of cover).

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D. SETH-SMITH, Glengarry, Canning Road, Croydon.
- Best ants' eggs procurable, perfectly clean, 3/- lb., postage extra. Meal-worms, all large, 500 for 1/6, 1,000 for 2/6, post free. Cash with order.
C. P. ARTHUR, Melksham.
- Jardine's Naturalists' Library, 40 vols., first edition, uniformly bound calf, gold lettered, clean, perfect; also *Ibis* for July. What cash offers?
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- White Java Doves, 5/- pair, carriage paid.
H. GURNEY AGGS, Pippbrook, Dorking.
- All quiet and healthy, and in outdoor aviary—Pair 1900 Ribbon Finches, good breeders, 4/6. odd 1901 hen, 2/3; pair 1901 Bronzewings, 4/-; Zebras, 4/- Two fine 1901 cock Canaries, 5/- each.
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(These are charged for at the same rate as birds for sale.)

- Hen Nonpareil; pair Diamond Sparrows; acclimatized, from outdoor aviary preferred.
The Hon. M. C. HAWKE, Wighill Park, Tadcaster.
- Pair Rosellas, from outdoor aviary, in good condition.
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- Good hen Cockatiel, in exchange for aviary-bred Senegal Dove.
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- Two cock Cordon-bleus, thoroughly acclimatized.
D. SETH-SMITH, Glengarry, Canning Road, Croydon.

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Mrs. GORTER, The Delta, Walmier, Kent.

Heer F. E. BLAAUW, Gooilust, 'S Graveland, Hilversum, Holland.

Master NOEL PHILLIPPS, 21, Addison Gardens, Kensington, W.

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Professor ALFRED NEWTON, M.A., F.R.S., F.Z.S., Magdalene College, Cambridge. *Proposed by Mr. SETH-SMITH.*

Mr. ERNEST W. LITTLE, 21, Blandford Street, W.

Proposed by Mr. ARTHUR GILL.

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Fine pair Eclecti, cock talks, very tame, has taken prizes, lovely plumage.

Each has large new cage with table to match, £6 6s. the lot. Good home essential.—Mrs LESLIE WILLIAMS, 21, Bathwick Hill, Bath.

Pair Californian Quails, 10/-; pair Budgerigars, 6/-; pair Virginian Nightingales, 24/-; all bred in outdoor aviary, in perfect plumage.

Miss B. SHEPHERD, The Den, Walton-on-Thames.

Seven Zebra Finches, 4/- pair; old cock, 2/-; from outdoor aviary.

Miss R. LYON, Harwood, Horsham.

Cock Virginian Nightingale, 15/-; cock Nonpareil, 8/6; Greater Spotted Woodpecker, 10/-; Lory, very beautiful plumage, 50/-; Californian Quails, aviary-bred, 20/- pair; Silver Pheasants, 2 cocks and 3 hens, 60/- the lot; pair Peafowl, 60/-; Australian Crested Bronze-wing Doves, 30/- pair; splendid young Grey Parrot, been in cold room 3 months, 40/-; pair Australian Quails, 20/-.

ARTHUR GILL, Veterinary Establishment, Bexley Heath, Kent.

Two Blue Sugar Birds (*Dacnis cayana*), hens, good feather, clean and healthy, 35/- each, 60/- the two; good healthy Violet Tanagers, 10/- each; Blue and Black Tanager, 20/-; Olive Tanager, 10/-; Superb Tanager, 20/-; adult breeding Cockatiels, from outdoor aviary, 12/6 pair; cock Combassous in full colour, 4/- each; Orange Bishops in full colour, 8/- each; Paradise Whydah, full colour and exceedingly large tail, 15/-; Black-faced Weavers in colour, 2/-; cock Grey Singing-finch in full song, 5/-; adult breeding Zebra Finches from outdoor aviary, 4/6 pair; ditto Ribbon Finches, 4/- pair; Tovi Parrakeets, 6/- each, — a genuine pair, cock and hen, 15/-; cock Long-tailed Grassfinch, 10/-; Indian Blue Magpie, a magnificent bird, 70/-; cock Plum-headed Parrakeet in full adult colour, 7/6.

C. P. ARTHUR, Melksham.

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PHILLIPPS, 26, Cromwell Grove, West Kensington Park, W.

Wanted to sell for 7/- hen Blue Robin, or would exchange for other birds.

F. MOERSCHELL, Imperial Hotel, Malvern.

(Continued on page iv. of cover).

MEMBERS' SALE AND EXCHANGE—*Continued.*

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Hen Pennant, from outdoor aviary; also hen White-headed Love Bird.

Lady MORSHEAD, Forest Lodge, Binfield, Bracknell.

Male Red-headed and male Black-headed Gouldian wanted by a lady member from a fellow-member's aviary; must be first-class birds. Send price and full particulars to SECRETARY.

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VOL. VIII.—No. 5.

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MARCH, 1902.

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APRIL, 1902.

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La Signora TOMMASI BALDELLI, 4, Via Silvio Pellico, Florence.

The Rev. J. C. B. FLETCHER, Mundham Vicarage, Chichester.

The Earl of POWIS, 45, Berkeley Square, and Powis Castle, Welshpool.

Mr. A. C. FREEMAN, Fern House, Thrapston.

Miss D. HAMILTON, 48, Bryanston Street, Portman Square.

Mrs. HOWARD WILLIAMS, Hamilton Lodge, Bickley, Kent.

Mrs. FRASER, 19, Rivers Street, Bath.

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VOL. VIII.—No. 8.

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JUNE, 1902.

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(Continued on page iii. of cover).

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VOL. VIII.—No. 9.

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JULY, 1902.

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AUGUST, 1902.

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(Continued on page iii of cover)

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BEING THE JOURNAL, OF

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FOR THE STUDY OF

FOREIGN AND BRITISH BIRDS.

VOL. VIII.—No. 12.

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OCTOBER, 1902.

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(Continued on page iii. of cover).

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